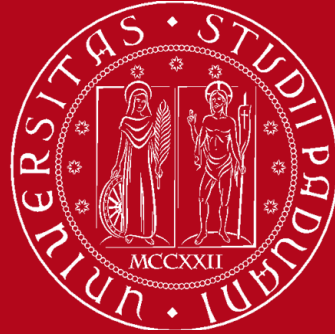


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Writing a scientific article: structure, style and winning strategies

Dott. Alessandro De Cassai

(alessandro.decassai@unipd.it)

Dipartimento di Medicina – DIMED

Istituto di Anestesia e Rianimazione – AOU Padova

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PADOVA



This is only my personal experience

(I will not have interesting study to show)

based on:

ASSOCIATE EDITOR

Plos One

BMC Anesthesiology

Turkish journal of anesthesia analgesia and critical care

Journal of Anesthesia, Analgesia and Critical Care

de cassai

Search

Advanced Create alert Create RSS User Guide

Save Email Send to Sort by: Most recent Display options

223 results

<< < Page 1 of 2 > >>

223 x 3 (~at least two rejection per article) = 669 submission



– Lot of spare time

– Why editors get upset
→ for young colleagues →

ACTA ANAESTH. BEL., 2025, 76 (3): 227

Letter to the editor

To the Rejected: Keep Failing Forward!

IT IS NOT THE FOCUS OF THE PRESENTATION BUT...

THE IDEA IS THE MOST IMPORTANT PART OF YOUR WORK



Efficacy and Safety of Anesthetic Agents for Preventing and Managing Intraoperative Penile Erection: A Systematic Review with Quantitative Synthesis

AND PLEASE....AVOID CASE REPORTS!

What I will discuss today?

Some tips – suggestions to organize your paper at the best



Why does it matter?

- Clear writing → higher chance of acceptance

Why?

Editor and reviewers are not in your head

- Communicates research impact effectively
- Saves reviewers', editors' and researchers time
- It will not upset the editor and reviewers!)

- Builds credibility as a scientist



FIRST AND MOST IMPORTANT TIP

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

Reliable sources

Different article types

How to present your data

Different writing styles

General tips:

- Please choose the right journal for your article ! (Scopus, Web of science) // Avoid predatory journals
- Please read the **INSTRUCTION FOR THE AUTHORS** (words count, paragraph, reference, sm)
- Use a good English (American / British) (→ friend // dedicated service // LLM)
- Short and clear sentences
- Use active voice whenever possible “We investigated...” rather than “It was investigated...”
- Avoid jargon, however use specific terms of the discipline
- Numbers **0–9**: write in words → *one, two, five*

Numbers **10 and above**: use numerals → *10, 25, 100*

(Exceptions: **1)Units of measurement**: always use numerals, even if <10 *3 mg, 5 mL, 2 cm*). **2) Start of the**

General tips:

<https://www.equator-network.org/reporting-guidelines/>



Reporting guidelines for main study types

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

CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	_____
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	_____
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	_____
	2b	Specific objectives or hypotheses	_____
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	_____
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	_____
Participants	4a	Eligibility criteria for participants	_____
	4b	Settings and locations where the data were collected	_____
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	_____
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	_____
	6b	Any changes to trial outcomes after the trial commenced, with reasons	_____
Sample size	7a	How sample size was determined	_____
	7b	When applicable, explanation of any interim analyses and stopping guidelines	_____
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	_____
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	_____
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	_____
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions	_____
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	_____
	11b	If relevant, description of the similarity of interventions	_____
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	_____
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	_____
Results			

A Study on Pain Relief During Surgery

- Too vague: which surgery, which patients, what type of pain relief?

Investigating Drugs in Anesthesia

- Non-specific: which drug, what outcome, in what population?

Effects of Medicine on Patients

- Very general, adds no useful information for readers or databases.

Be **specific**: include population, intervention/exposure, and outcome.

Indicate **study type** if relevant (RCT, cohort, systematic review).

Avoid **vague terms**, abbreviations, or humor (unless for a lighthearted journal like BMJ Christmas).

Keep it **concise**, ideally under 15 words.

- **Dexmedetomidine Reduces Postoperative Pain and Opioid Consumption in Patients Undergoing Laparoscopic Cholecystectomy: A Randomized Controlled Trial**
- **Comparison of Ultrasound-Guided Versus Landmark-Guided Brachial Plexus Block for Upper Limb Surgery: A Prospective Cohort Study**
- **Perioperative Magnesium Sulfate Infusion Decreases Emergence Agitation in Pediatric Tonsillectomy: A Double-Blind Randomized Trial**

A compared to B in C: study design

Introduction: Why: States the research problem and its context.

- What: Briefly summarizes previous research, identifies a gap in knowledge, and explains why the current study is important.
- Hypothesis: SHOULD include the specific hypothesis or research questions being tested.

Methods:

- What: Describes exactly how the research was conducted so that the experiment could be replicated.
- How: Details the materials, subjects, and procedures used.
- Justification: Explains why a particular method was chosen

Results:

- What: Presents the findings of the research objectively, often using tables and figures.
- How: Reports the data and observations without interpretation or commentary.
- Organization: Presents results in a logical order, such as from least to most significant

Discussion:

- What: Interprets the results and answers the question: What do the findings mean?.
- How: Explains the implications of the results, whether the objectives were met, and the limitations of the study.
- Connection: Compares and contrasts the findings with previous research to place them in a broader context.

AVOID MIXING METHODS AND RESULTS!

According to our sample size calculation and our inclusion criteria we plan to include 30 male patients undergoing hip surgery (IS A METHOD)

We have included 30 male patients undergoing hip surgery (IS A RESULT!)



ABSTRACT

→ Be aware of the words count limit

→ It will be the only part of your manuscript that many will actually read!

Keep it Structured (IMRaD in miniature)

- **Introduction / Background:** One or two sentences – why the study was done. Insert the AIM!
- **Methods:** Study design, participants, interventions, measurements, analysis.
- **Results:** Key findings with data (numbers, percentages, effect sizes).
- **Conclusion:** Main message and implications.

TIPS:

No abbreviations

Use active voice

Use actual data (e.g. “patients in group B consumed 3.2 ± 1.0 mg lower MME than...”)

NOT FOR REVIEWERS BUT TO IMPROVE THE IMPACT!

Be Specific and Relevant → Reflect the main topic, intervention, population, or outcome.

Use Standardized Terms → Prefer MeSH (Medical Subject Headings) terms when possible.

 National Institutes of Health (.gov)
<https://www.ncbi.nlm.nih.gov> › ... › [Traduci questa pagina](#) ⓘ

[Home - MeSH - NCBI - NIH](#)

MeSH (Medical Subject Headings) is the NLM controlled vocabulary thesaurus used for indexing articles for PubMed.

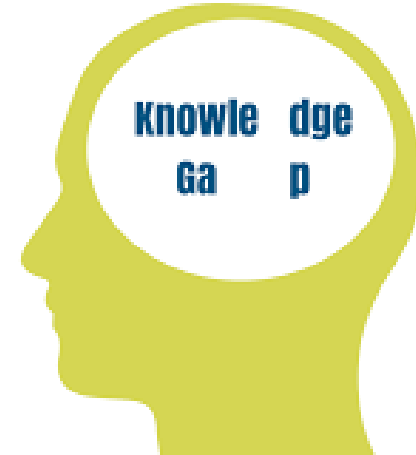
Include Synonyms or Variations → Helps with database indexing.

Avoid Words Already in the Title → Keywords should complement the title, not just repeat it.

Limit to 3–6 Keywords

Knowledge gap → research question → hypothesis

- Background to the subject (brief!)
- What is known and unknown about it
- Aim of your study
- Hypothesis



As a general rule, the Introduction should be covered in a maximum of 1.5 pages double-spaced.

Clear, reproducible, transparent (remember again, reviewers are not in your head)

- Ethics approval / licence (including date and administering institution) → *if possible include the approval document*
- Registration (including date and deviations)
- Patient population
- Inclusion and exclusion criteria
- Conduct of the study (e.g blind, techniques, etc)
- Measurements and data handling
- Primary and secondary endpoints
- Sample size calculation
- Statistical analyses

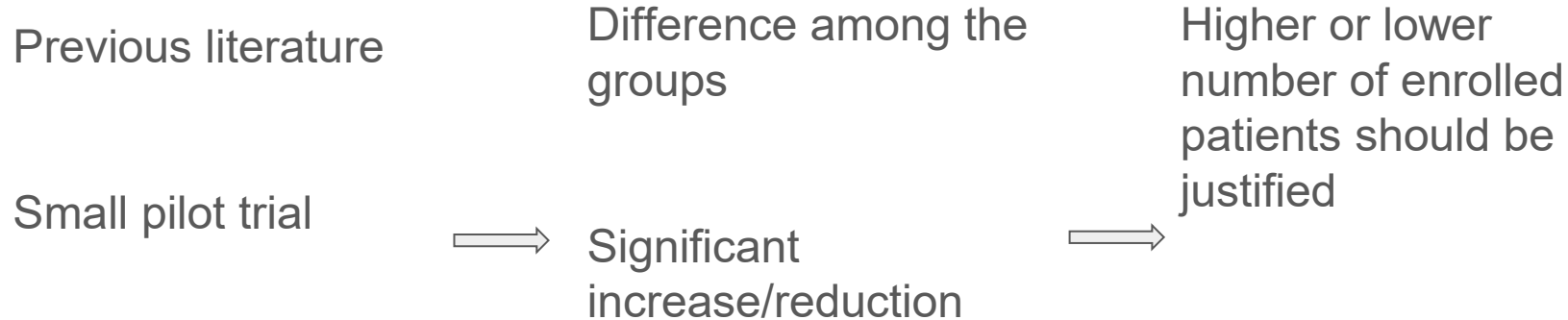
How set in stone are the project's and movement's names at this point? To grow faster, the movement needs to make a good first impression, taking advantage of anyone's fleeting first exposure to it so a person will want to learn more and believe it could actually offer a possible real solution or they won't bother. But this name, "The Venus Project", rather than encouraging one to listen with an open mind could cause one's antennae to go up, waiting for the crazy, not realistic, "out of this world" part. (In guessing the Venus in the Venus Project comes from Jacques being in Venus, Florida, but to any newbie "Venus" means something "out there" on other planet, and I think that makes an easily avoidable bad first impression. The "Venus Project" name doesn't sound serious to me, it sounds childish. Also the name of the movement, "Zeitgeist", is not only needlessly non-salient, descriptive (we're wasting valuable exposure time with a mysterious name - losing the opportunity that on each occasion when the name of the organization is mentioned, that in itself could be sending an introduction to a new idea, like if the name were "Technology Solves All Movement for a sloppy example), but it will also forever tie the movement to what some will call the conspiracy stuff (911, religion, etc.) because of your identically named movie Zeitgeist, and this will only distract and alienate from the RBE prize. I was in the 911 Truth Movement and saw up front & personal so many who had an instinctively negative visceral reaction to any suggestion that 911 was an inside job, that they would hear no more. Also, why alienate those with strong beliefs in their religion? Is it really necessary for us to first convince everyone they've been led to about everything their whole life before introducing a sane alternative to a profit based society when there are no good jobs anymore even in the first world? People are desperate for an alternative and these other things I think are unhelpful distractions to a beginner's introduction to the possibility of another way. Activists for a new system won't get so many bites at the mainstream media exposure apple that we can afford to squander any by tying a hand behind our back with unimportant inconsequential stuff like names and logos. Perhaps if we eliminate these easily changed hurdles, the movement will grow faster and have less back and debunking charges to respond to. Trust me, I know that responding to 911 debunking charges is a full time job in itself, it's a rabbit hole. Unless we get away from the Zeitgeist movie name, we will be linked to the what people call the "conspiracy" stuff. Of course, this suggestion should not in anyway detract from your contribution, Peter. You actually created the movement, right? And probably lots of us learned of BECAUSE of your movie's addressing of the "conspiracy" stuff. This is truly only a request for a superficial and easily made change to de-link the V.P. and a R.B.E. with the unrelated items others deem conspiracy and/or non-positive theories. I say easily made because people's flyers, old sleeves, logos, stuff that is printed when needed, can be changed digitally on computers with existing technology generally available to those who print the stuff (just retyping, or simple editing, right?) and there are stockpiles of stuff with the current names on it that would be wasted I assume? Thanks in advance for your consideration, and please also address when you think such a decision as to the movement's name should be made.

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SAMPLE SIZE

It is important to choose and report sample sizes for studies based on biologically or clinically important and realistic effect sizes.



All the data that you have used for your sample size calculation have to be reported

We calculated that a sample size of 30 animals per group would be required to detect a 20% difference in nerve conduction velocity between treatment and control groups, with a standard deviation of 15%, using a two-tailed t-test at $\alpha = 0.05$ and 80% power. Sample size calculations were performed using G*Power version 3.1.9.7.

We used 30 animals per group based on previous studies.

Increase in sample size to avoid attrition bias?

Remember that the study could be underpowered for secondary objectives!

STATISTICAL ANALYSIS

Ask a statistician (!!)

Describe how you data were handled

Report each tests you have used and why

Avoid over testing (introduce errors!)

Report the statistical program you have used and the version (e.g R version 3.4.4)

Comparison	P value	Rank	Adjusted P value
Question 1	.43	1	.05
Question 2	.37	2	.025
Question 3	.28	3	.017
Question 4	.18	4	.0125
Question 5	.07	5	.01
Question 6	.05	6	.0083
Question 7	.04	7	.0071
Question 8	.04	8	.0063
Question 9	.03	9	.0056
Question 10	.01	10	.005

First of all ! Organize your data (give a look to ItA)

How many tables?

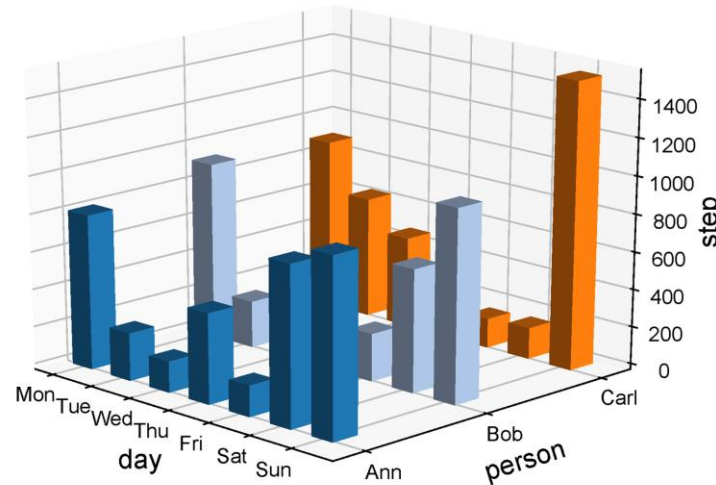
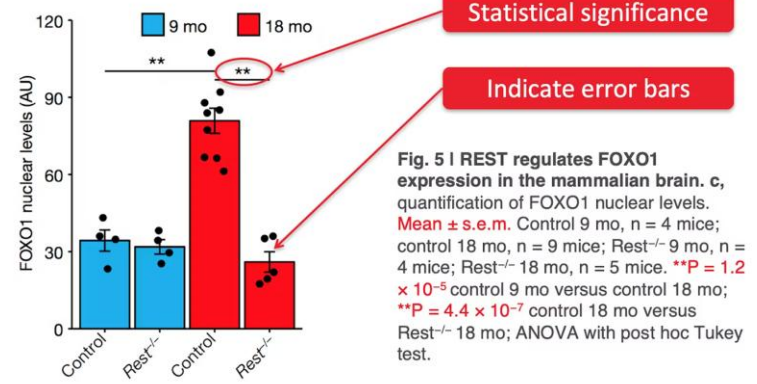
How many figures?

How many supplementary tables and figures do you need? (***Game changer***)

Which data have to be put in the text and how?

Results

- 1. Avoid titles inside the figure**
 - 2. Label the axes clearly (variable names; units of measurement)**
 - Example: *Pain score (VAS, 0–10), Time (min)*.
 - 3. Insert a measurement scale**
 - Always define what each axis or color represents.
 - 4. Add error bars**
 - 5. Use color wisely (background? gradient? bars?)**
 - Ask: *Will the journal print in black & white or color?*
 - 6. Write a clear figure legend**
-
- 1. And please do not use 3d!**



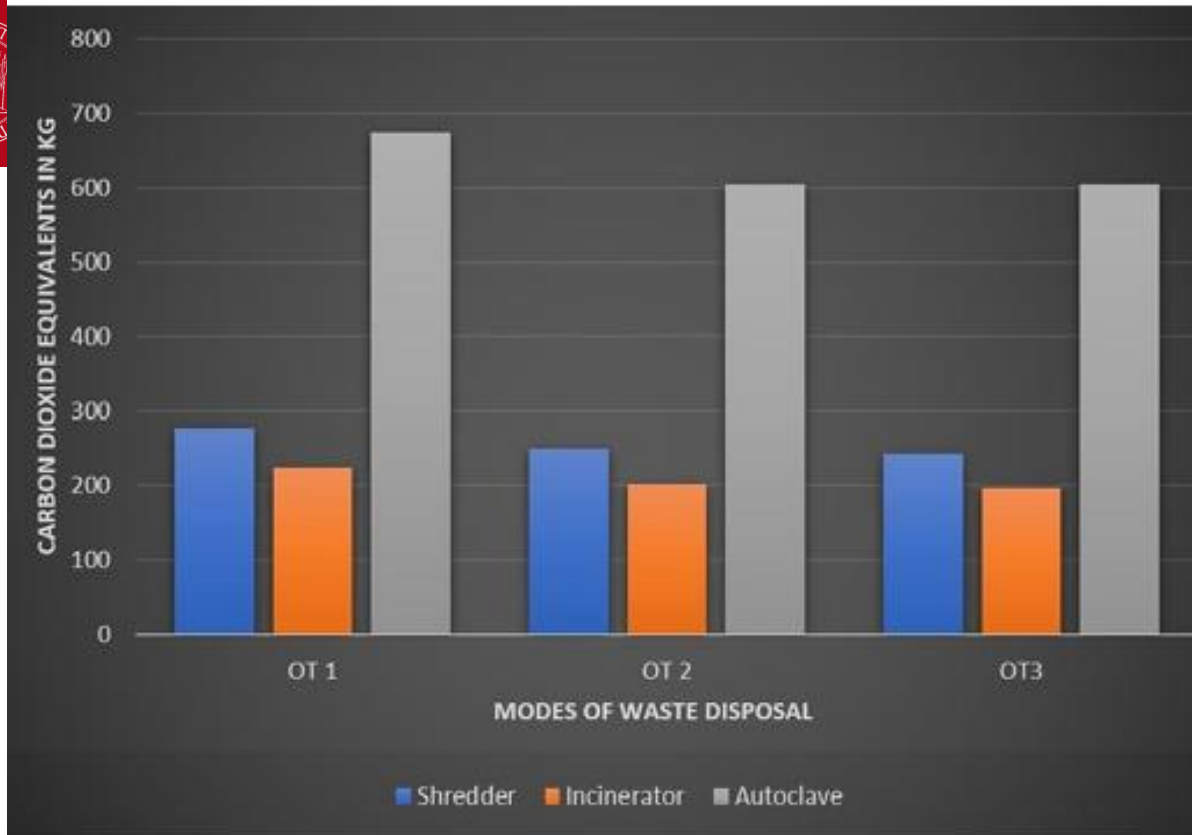
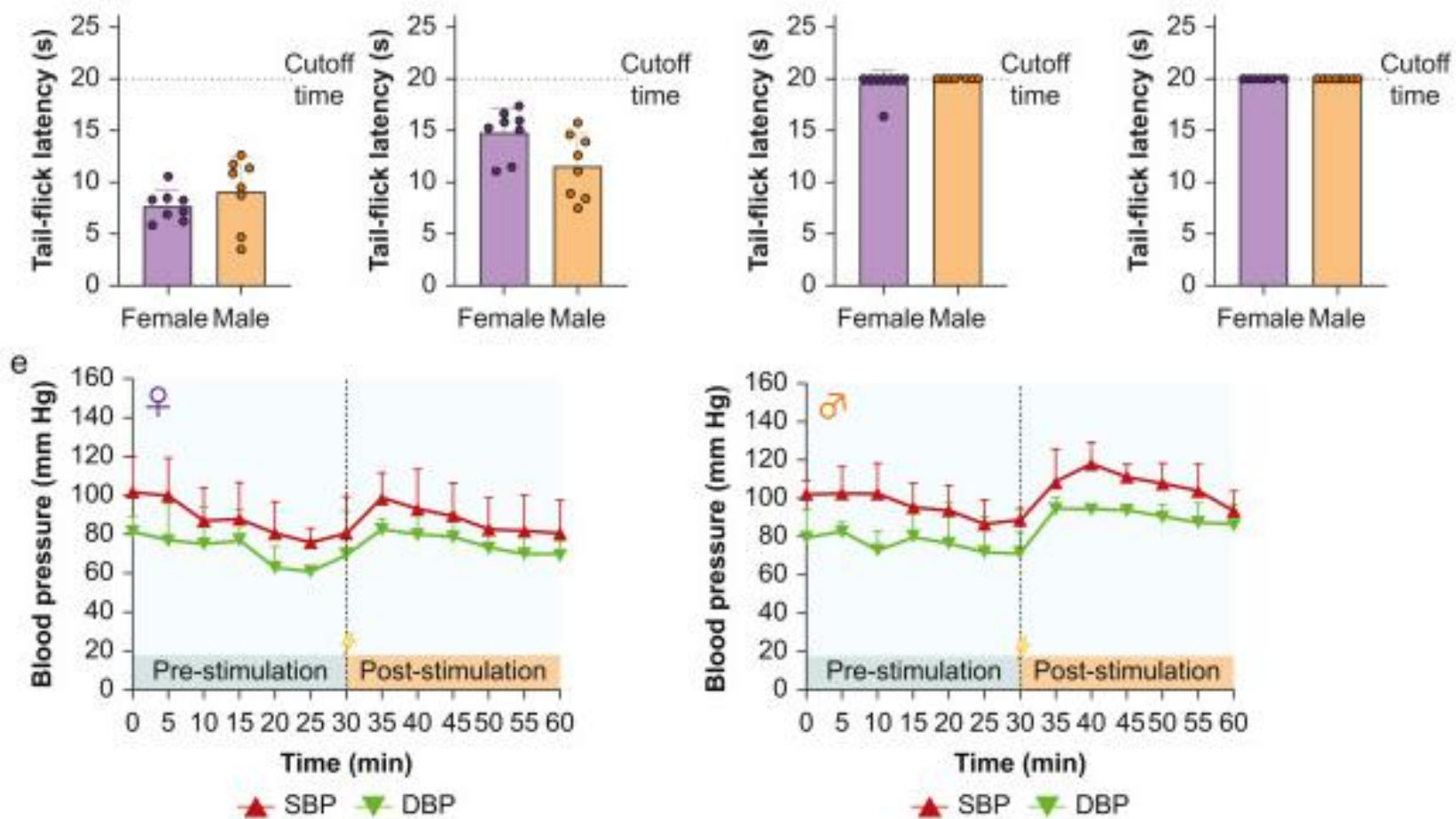


Figure 3: CO₂ equivalents from biomedical waste management



In a logical order (→ the same of Methods) (*“The main result of our work is ..”*)

Provide a diagram of your study (eg CONSORT, PRISMA)

Demographic variables (some could be presented in the text) complex in tables!

Data should not be repeated unnecessarily in text, tables and figures.

Unwarranted numbers of digits (false precision) should be avoided (e.g. 2.1 mg kg⁻¹ rather than 2.0897 mg kg⁻¹)
(common rule. Percentage 12 or 12.1%, continuous data 12.34 , p-value 0.123)

Check your data “ Patients in ESP consumed 1.4 ± 3.5 mg of morphine at the sixth postoperative hours”

Table 4

Want same font size for word Table4, also there is extra line after me and table is small :)

[illegible]

Discussion

No more than a page and a half!

Main result

Relation to previous studies

Secondary results

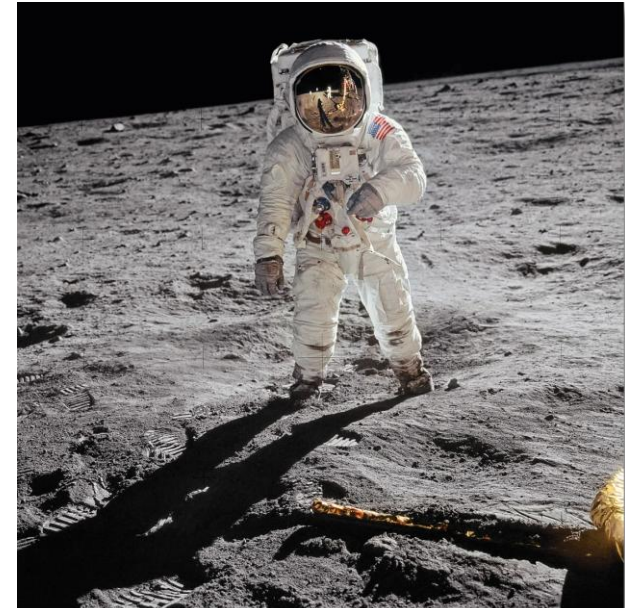
Why are they different/same

Weaknesses and strengths in study (LIMITATIONS!)

Future studies

Conclusions

Keep in mind: you're not the first to land on the moon. No need for primacy claims!



Winning Strategies

- Choose the right journal early
- Follow author guidelines strictly
- Draft figures/tables first
- Revise multiple times
- Seek feedback / consider professional editing

Common Pitfalls

- Overloaded introduction/wall of text
- Mixing results and discussion
- Weak conclusion / unclear message
- Unjustified claims
- Poorly formatted tables/figures
- Ignoring journal guidelines



STUDIO NEURAL



NEUROLOGICAL EVENTS AND UNFORESEEN RISKS AFTER
LOCOREGIONAL-ANESTHESIA

ricerca@siaarti.it

alessandro.decassai@unipd.it



GRAZIE
PER
ATTENZIONE