

Comment se faire publier

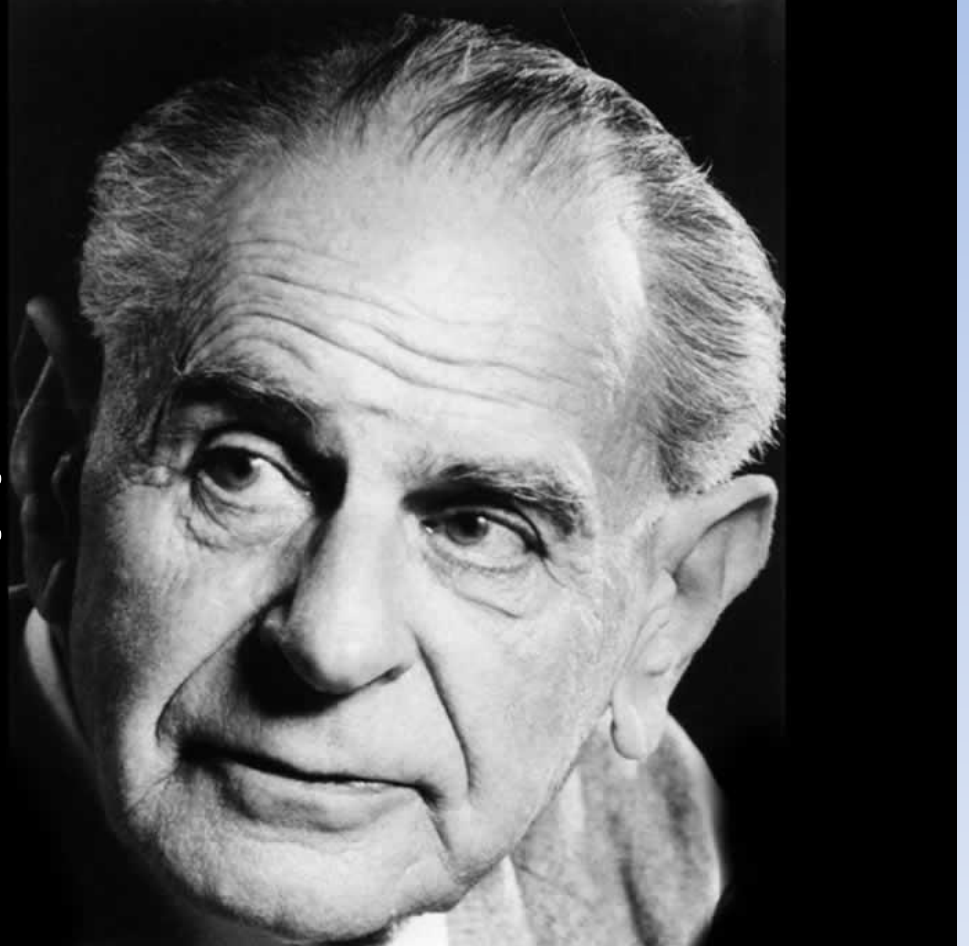
Comment se faire accepter

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Deputy Editor – European Journal Emergency Medicine
Associate Editor – Academic Emergency Medicine

Publish or perish

What is science?

Corroborer
une
hypothèse est
impossible



What is science?

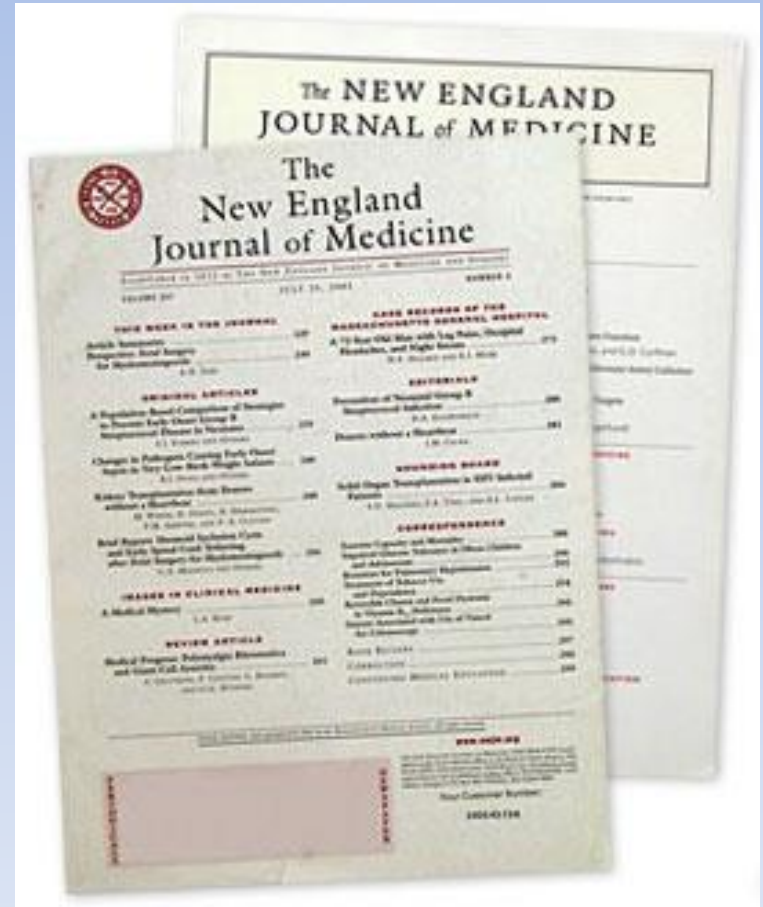
La science, c'est une hypothèse testée.

Une étude se construit autour d'une hypothèse nulle

Quelle différence?



≠



Journaux en peer review

- 5 000 journaux biomed il y a 30 ans
- > 25 000 aujourd'hui
- +3% par an
- 1.5 million d'article publiés par an

50 millions d'articles

1 article publié sur pubmed par minute

2 questions :

- Comment faire pour ne pas être le seul à ne pas publier?
- Comment faire pour qu'il soit remarqué?

Comment choisir?

Publier au-delà de sa spécialité?

- Si résultats déterminants / fin d'une polémique / concepts novateurs
- Validité externe et outcomes importants!
- Si concerne plusieurs spé (*évidemment...*)

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Intensified Antituberculosis Therapy
in Adults with Tuberculous Meningitis

**Publier au-delà de sa spé montre en général
qu'on a des résultats plus intéressants**

Se comparer!

Methodo : meilleure? Plus de biais? - Résultats +/- fort?

Une étude préliminaire a fait le top journal de sa catégorie

Vous confirmez les résultats sur une étude multicentrique

Ou soumettre?

Vous refaites exactement la même étude qui a fait un tres gros journal.

Vous démontrez le contraire

Ou soumettre?

Se comparer!

Vous testez un nouveau test /
nouveau médicament.

Même methodo que d'autres
papiers, et résultats négatifs

Ou soumettre?

Vous vérifiez en
observationnel monocentrique
les résultats d'un RCT
international

Ou soumettre?

Gérez son ego et le temps



Gérez son ego et le temps

WHAT PART OF

NO

DON'T YOU UNDERSTAND?

Gérez son ego et le temps



Ou plus gentiment

« Although »

Ou plus gentiment

Merci,

mais non merci...

En pratique

- Ne pas viser plus haut que la cible se discute
- Si 2-3 refus, on est loin du compte

Possibilités

- Descendre d'un cran, revoir ses attentes à la baisse



Possibilités

- Monter d'un cran, sur une autre spécialité

Autre regard

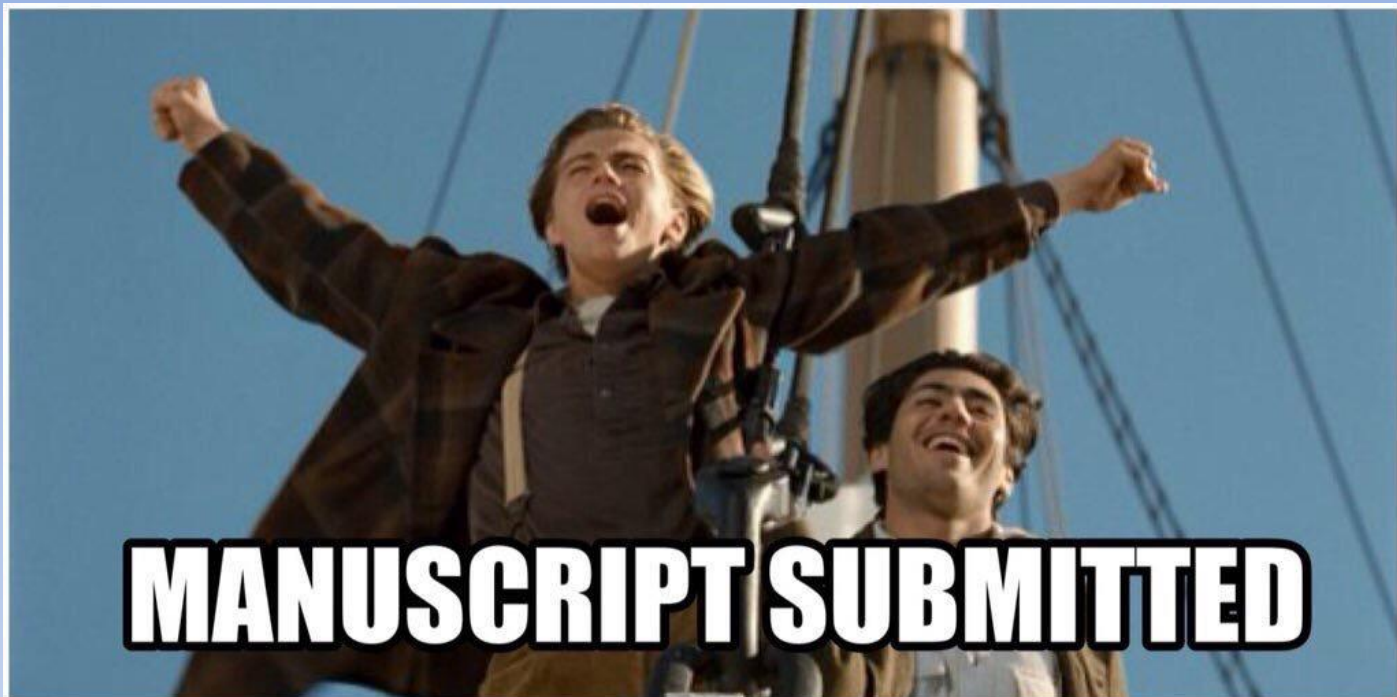
Moins strict sur certain détails

« j'y comprends rien mais c'est génial »

Au-delà de l'égo

- Processus de soumission prend du temps
- Reformater prend du temps

**Vous ne rajeunissez pas – votre étude non plus
Quel prix une catégorie? Un point d'IF?**

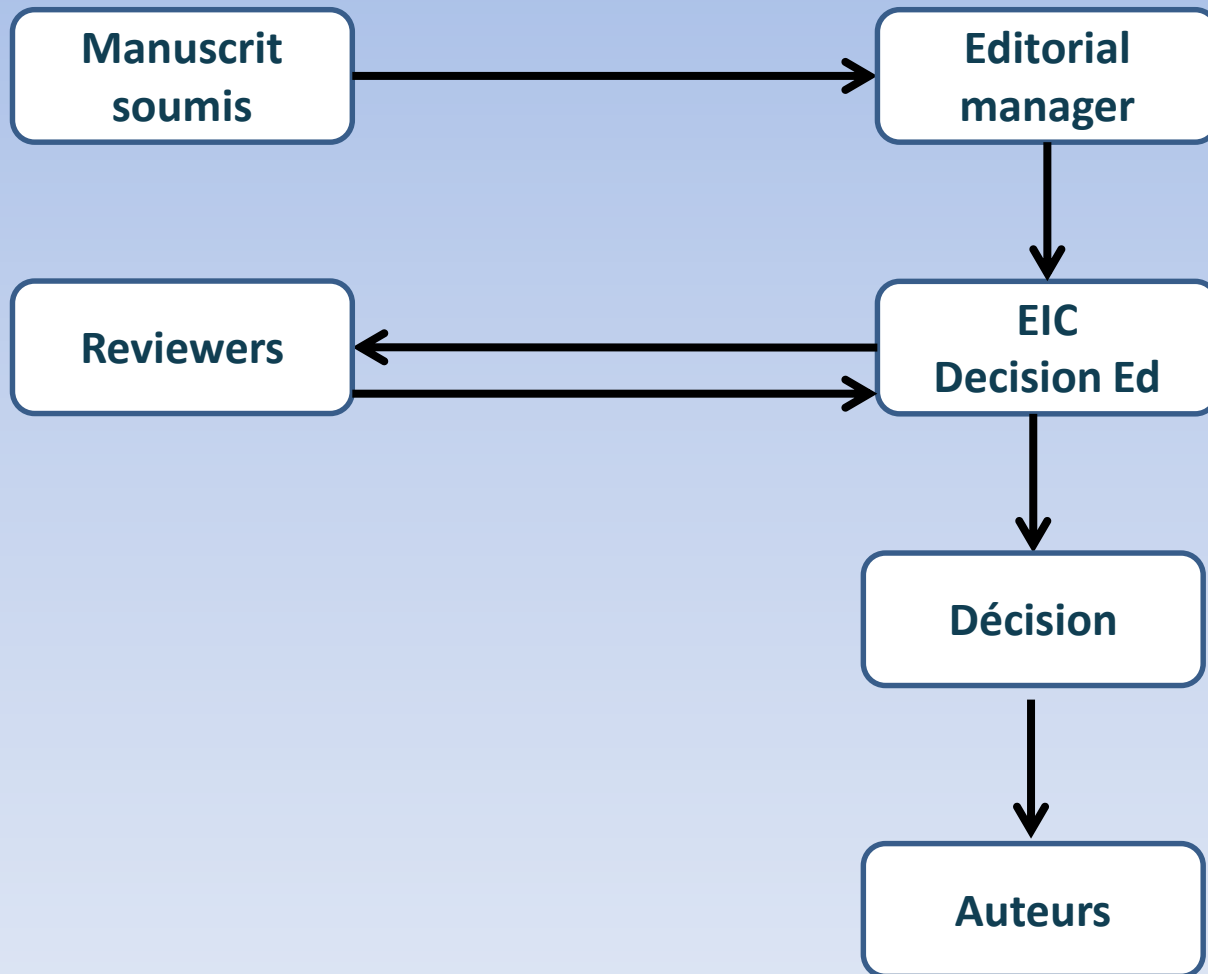


MANUSCRIPT SUBMITTED



MANUSCRIPT ACCEPTED

Processus éditorial



A Rough Guide to SPOTTING BAD SCIENCE

Being able to evaluate the evidence behind a scientific claim is important. Being able to recognise bad science reporting, or faults in scientific studies, is equally important. These 12 points will help you separate the science from the pseudoscience.

1. SENSATIONALISED HEADLINES



Article headlines are commonly designed to entice viewers into clicking on and reading the article. At times, they can over-simplify the findings of scientific research. At worst, they sensationalise and misrepresent them.

2. MISINTERPRETED RESULTS



News articles can distort or misinterpret the findings of research for the sake of a good story, whether intentionally or otherwise. If possible, try to read the original research, rather than relying on the article based on it for information.

3. CONFLICTS OF INTEREST



Many companies will employ scientists to carry out and publish research - whilst this doesn't necessarily invalidate the research, it should be analysed with this in mind. Research can also be misrepresented for personal or financial gain.

4. CORRELATION & CAUSATION



Be wary of any confusion of correlation and causation. A correlation between variables doesn't always mean one causes the other. Global warming increased since the 1800s, and pirate numbers decreased, but lack of pirates doesn't cause global warming.

5. UNSUPPORTED CONCLUSIONS



Speculation can often help to drive science forward. However, studies should be clear on the facts their study proves, and which conclusions are as yet unsupported ones. A statement framed by speculative language may require further evidence to confirm.

6. PROBLEMS WITH SAMPLE SIZE



In trials, the smaller a sample size, the lower the confidence in the results from that sample. Conclusions drawn can still be valid, and in some cases small samples are unavoidable, but larger samples often give more representative results.

7. UNREPRESENTATIVE SAMPLES USED



In human trials, subjects are selected that are representative of a larger population. If the sample is different from the population as a whole, then the conclusions from the trial may be biased towards a particular outcome.

8. NO CONTROL GROUP USED



In clinical trials, results from test subjects should be compared to a 'control group' not given the substance being tested. Groups should also be allocated randomly. In general experiments, a control test should be used where all variables are controlled.

9. NO BLIND TESTING USED



To try and prevent bias, subjects should not know if they are in the test or the control group. In 'double blind' testing, even researchers don't know which group subjects are in until after testing. Note, blind testing isn't always feasible, or ethical.

10. SELECTIVE REPORTING OF DATA



Also known as 'cherry picking', this involves selecting data from results which supports the conclusion of the research, whilst ignoring those that do not. If a research paper draws conclusions from a selection of its results, not all, it may be guilty of this.

11. UNREPLICABLE RESULTS



Results should be replicable by independent research, and tested over a wide range of conditions (where possible) to ensure they are consistent. Extraordinary claims require extraordinary evidence - that is, much more than one independent study!

12. NON-PEER REVIEWED MATERIAL



Peer review is an important part of the scientific process. Other scientists appraise and critique studies, before publication in a journal. Research that has not gone through this process is not as reputable, and may be flawed.



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Ce qu'on peut éviter après l'étude



Pourquoi je suis rejeté?

Votre étude est pourrie

Vous avez soumis au mauvais journal

Vous avez mal écrit l'article

Pourquoi je suis rejeté?

- Méthode ambiguë
- Résultats ambigus
- Conclusion non soutenue par résultats
- Références non adaptées
- Design de l'étude mal présenté
- Tableaux confus
- Discussion trop longue
- Mauvaise explications/definition key terms

Pourquoi je suis rejeté?

Question 1¹²

What is the single most common type of flaw that results in outright rejection of a manuscript?

| | | |
|--------------------------------|----|-------|
| Design of study | 20 | (71%) |
| Interpretation of the findings | 4 | (14%) |
| Importance of the topic | 4 | (14%) |
| Presentation of the results | 0 | (0%) |

Question 2

Which section usually contains the most flaws?

| | | |
|--------------|----|-------|
| Methods | 16 | (55%) |
| Discussion | 7 | (24%) |
| Results | 6 | (21%) |
| Introduction | 0 | (0%) |

Question 3

Which section is most often responsible for outright rejection?

| | | |
|--------------|----|-------|
| Methods | 15 | (52%) |
| Results | 8 | (28%) |
| Discussion | 6 | (21%) |
| Introduction | 0 | (0%) |

Pourquoi je suis rejeté?

Question 4. Deficiencies in Interpretation¹²

Which of the following eight deficiencies is most often responsible for outright rejection?

| | | |
|---|---|-------|
| Conclusions unsupported by data | 7 | (61%) |
| Data inconclusive | 7 | (25%) |
| Data too preliminary | 2 | (7%) |
| Unconvincing evidence of cause and effect | 2 | (7%) |

Question 6. Deficiencies in Presentation¹²

Which of the following eight deficiencies is most often responsible for outright rejection?

| | | |
|---|---|-------|
| Inadequate or inappropriate presentation of the data | 9 | (32%) |
| Rationale confused, contradictory | 7 | (25%) |
| Failure to give a detailed explanation of the experimental design | 7 | (25%) |
| Essential data omitted or ignored | 2 | (7%) |
| Poorly written; excessive jargon | 2 | (7%) |
| Boring | 1 | (4%) |

Un bon abstract

- Une hypothèse
- La méthode utilisée pour la réfuter
- Les critères de jugement pour l'évaluer

Sans ça, c'est rejeté d'emblé

Même un survey doit avoir une hypothèse.

Sinon c'est un sondage, ou une histoire sympa...

First example

Background: Sepsis is a highly prevalent condition, associated with a high morbidity. It has been suggested that a protocol of early antibiotic associated with early high intensity care may improve hospital course.

Method: This was a before/after study in 12 EDs. We implemented the new protocol of care on January 2016. We included all patients with sepsis during the study period. The primary endpoint was mortality. Secondary endpoints included ICU admission and adverse events.

Result: We included 500 patients in the study – 199 in the control period and 301 in the intervention period. Mortality was significantly reduced in the intervention period (15% vs 25%, $p=0.001$). We also observed significant improvement in ED length of stay and hospital readmission rate. The rate of ICU admission was similar in both groups (30% vs 31%, $p=0.2$)

Conclusion: In this study, we demonstrated that an early and comprehensive care bundle improves outcome among septic patients in the ED.

2nd example

Background: Ankle sprain is a common diagnosis in the ED. The optimal care for this injury remains debated. We tested the hypothesis that compression stockings speed up pain free recovery from ankle sprain.

Method: Prospective pilot study in 1 ED in Paris. We included all adult patients with clinically diagnosed ankle sprain without evidence of bone fracture on plain x-ray for a 3-month period in 2016. All patients were followed-up for 4 weeks. Patients were randomized to wear a placebo jersey or a class 2 compression stocking. The primary endpoint was the time to recovery to normal painless walking. Secondary endpoint was ankle edema, defined as persistent of increased bimalleolar circumference of at least 10% compared to sane foot. A sample of 80 patients was required to detect a difference of at least 1 day in the primary endpoint with a power of 0.8.

Result: Among the 84 patients included (42 in each group), 82 (98%) completed follow-up. There was no difference in the primary endpoint between both groups (5 days in the compression group vs 6 days in the placebo group, mean difference 0.5 days (95%CI -2.5 to 4.1 days). We observed a similar rate of persistent ankle edema in the two groups: 4% vs 6%, OR=1.1 (95%CI 0.8 – 1.4),

Conclusion: Our pilot study does not support the benefit of compression stocking in ankle sprain.

Qui a des chances d'être publié?

Le mec trop cool qui a sauvé des vies ?
12 EDs, 500 patients, mortality reduction!

Le polars qui a trouvé qued dans une patho benigne
One ED, 84 patients...

En tant qu'éditeur

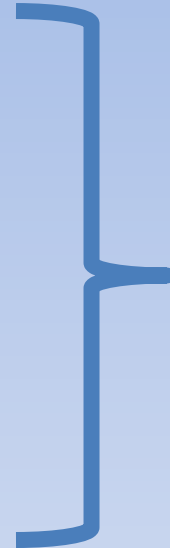
- L'abstract a de grandes chances d'être la seule chose que je lis
- Doit être « self explanatory »

Particularité des abstracts de conf :

Pas de révision possible! Tout doit y être!

Gold standard

- Objectives
- Design
- Setting
- Participants
- Interventions
- Main outcome measures
- Results
- Conclusion
- Registration



Background

Methods

Result

Conclusion



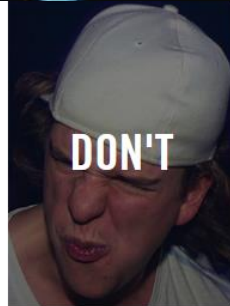
DON'T



DO



DON'T



DON'T



DO



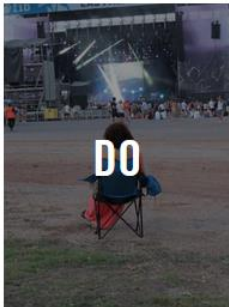
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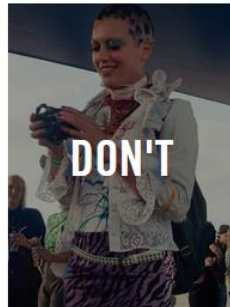
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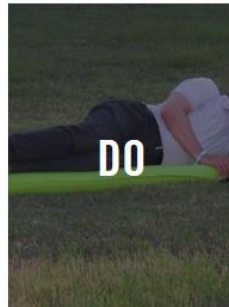
DON'T



DO



DON'T



DO



DON'T



DO



DON'T

DO

- Soyez obsessionnels sur Méthode et Résultats
- Present your results in an anally retentive way

There were 54 events (6.4%) in the group A compared with 90 events (10.7%) in the group B (RRR 40% [95%CI 12-59], ARR 4.3%, NNT 24).



DON'T

« Primary endpoint was 45-day mortality »



DON'T

A « significative change »

15% vs 35% - $p=0,04$

Moyenne de 5 (SD 3) vs 7 (SD 4) – $p=0,01$

« A trends towards... ($p=0,09$) »

DO

Parlez en effect size!

Durée d'hospitalisation de 7,3j vs 5,4j

Durée d'hospitalisation :
7,3j (SD=4,3) vs 5,4j (SD=3,4) (p=0,03)

Durée d'hospitalisation de 7,3j vs 5.4,
réduction moyenne 1.9j (95%CI 0.4 – 3.7)

Back to example 1

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Background: Sepsis is a highly prevalent condition, associated with a high morbidity. It has been suggested that a protocol of early antibiotic associated with early high intensity care may improve hospital course.

What is a high intensity care?

What is the aim of the study?

Back to example 1

Method: This was a before/after study in 12 EDs. We implement the new protocol of care on January 2016. We included all patients with sepsis during the study period. The primary endpoint was mortality. Secondary endpoints included ICU admission and adverse events.

Study design?

What is the intervention?

What is the population?

What mortality?

What is an adverse event?

Ca c'est moche

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- Why unequal number of included patients?
Similar patients in both groups?
- Effect size? 95% CI?
(*In fact OR = 1.89 [95%CI 1.04 to 2.74]*)
- What are these IR^y endpoints?

And just for fun

Conclusion: In this study, we **demonstrated** that an early and comprehensive care bundle improves outcome among septic patients in the ED.



And just for fun

Conclusion: In this study, we **demonstrated** that an early and comprehensive care bundle improves outcome among septic patients in the ED.

Tu n'as rien démontré du tout!
Einstein a démontré des trucs.
Personne ici ou pas loin ne démontrera rien.

What about example 2?

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This is a perfect abstract !



Where I come from,
we call that *talent*.

10 commandements

- Hypothesis / objective / endpoints:
Clairement reportés et cohérents
- Results: detailed, size effect, 95%CI...
Toujours cohérents
- Conclusion: pas de spin. Pas d'extrapolation.
- Soyez cohérents!
*Si vous avez 10 commandements, n'en rapportez
ps 4!*