Marie Skłodowska-Curie Actions
Innovative Training Networks (ITN)
European Joint doctorate (EJD)
H2020-2015

# MIROR Training Event
# Practical session
## Journal Club

Isabelle Boutron (University Paris Descartes)
Els Goetghebeur (University of Ghent)

# Logistic

- Organisation by the students of a **journal club** that will aim to result in the **submission of a letter to the editor** through videoconferencing every 3 months.

- 2 students from 2 different teams will be responsible for the organisation of a journal club
  - Choose an article that will be read by all the students
  - Lead the discussion
  - Write a letter to editor
  - If rejected post the letter on PubMed Common

- Supervision by one researcher

- Authors of the letter/comment: the 2 students and the senior researcher

# Logistic

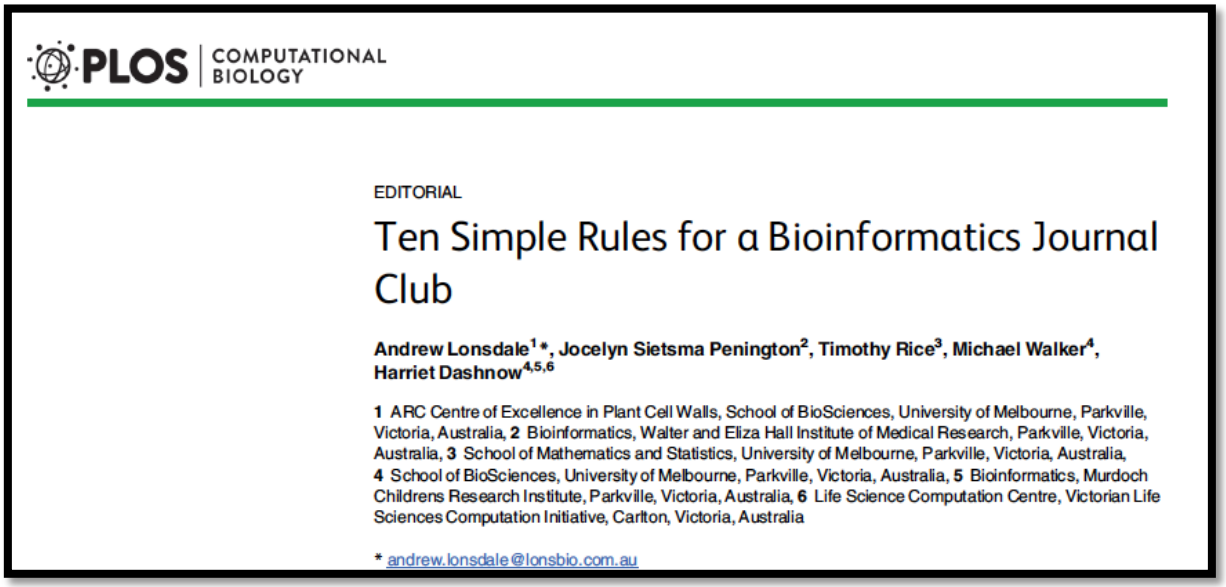
- First journal club: **December 2016**

| Dates | Students in charge | Student in Charge | Supervisor in charge |
|---|---|---|---|
| Dec 2016 | Linda Nyanchoka | Camila Olarte Parra | Ghent |
| March 2017 | Van Nguyen Thu | Christopher Norman | CNRS |
| June 2017 | Alice Biggane | David Blanco | Barcelone |
| September 2017 | Ketevan Glonti | Efstathia Gkioni | Liverpool |
| December 2017 | Maria Olsen | Melissa Sharp | Amsterdam |
| March 2018 | Melissa Sharp | Linda Nyanchoka | Split |
| June 2018 | Van Nguyen Thu | Christiane Hagel | Paris Descartes |
| October 2018 | Maria Olsen | Alice Biggane | Liverpool |
| December 2018 | Christiane Hagel | Vo Tat Thang | Ghent |
| March 2018 | Mona Ghannad | Anna Koroleva | CNRS |
| June 2018 | Lorenzo Berizzolo | Camila Olarte Parra | Paris Descartes |
| October 2018 | Christopher Norman | Mona Ghannad | Amsterdam |

# Choice of the article

- Discussion between the students and the researcher involved

# Organisation some tips



PLOS | COMPUTATIONAL BIOLOGY

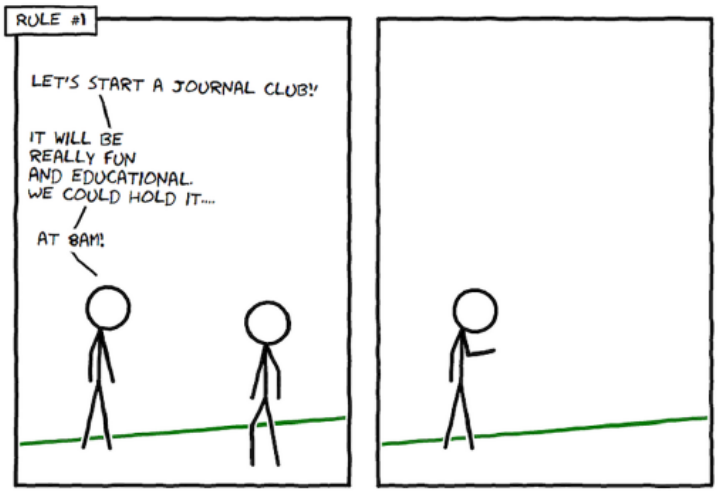
EDITORIAL

## Ten Simple Rules for a Bioinformatics Journal Club

**Andrew Lonsdale[1]*, Jocelyn Sietsma Penington[2], Timothy Rice[3], Michael Walker[4], Harriet Dashnow[4,5,6]**

**1** ARC Centre of Excellence in Plant Cell Walls, School of BioSciences, University of Melbourne, Parkville, Victoria, Australia, **2** Bioinformatics, Walter and Eliza Hall Institute of Medical Research, Parkville, Victoria, Australia, **3** School of Mathematics and Statistics, University of Melbourne, Parkville, Victoria, Australia, **4** School of BioSciences, University of Melbourne, Parkville, Victoria, Australia, **5** Bioinformatics, Murdoch Childrens Research Institute, Parkville, Victoria, Australia, **6** Life Science Computation Centre, Victorian Life Sciences Computation Initiative, Carlton, Victoria, Australia

* andrew.lonsdale@lonsbio.com.au




Incentives

**Let Your Topics Be As Diverse As Your Members**

**Find Good Articles For Discussion**

# Letter to editor

- Why are letters important?
  - Help to maintain and strengthen the evidence.
- The process is fairly simple:
  - readers provide a critical review in the format of a letter to the editor and have it published.
  - From there, the letter is recorded alongside the original paper in literature indexing systems, thus helping to clarify the original work and strengthen the evidence

# Letter to editor

- What should I write about?
  - identify errors and make a correction
  - provide an alternate theory
  - provide additional information
  - offer additional evidence
  - provide a counterpoint.

# Letter to editor

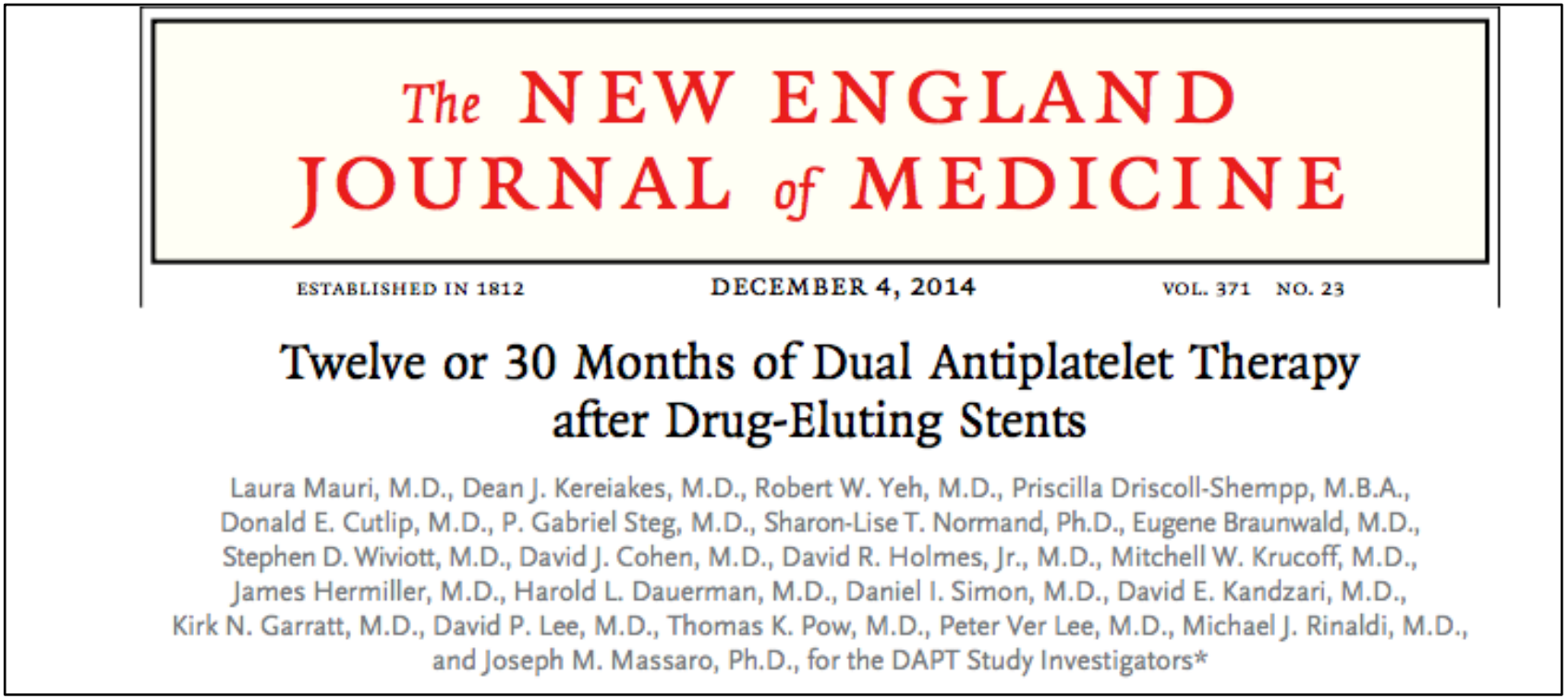
- How should I write
  - Be brief
  - Do not repeat the original article
  - Stay focused on your primary purpose for writing.
  - Do not address several minor issues

# Some questions to consider

1. Are the grammar and spelling correct?
2. Is the message of the letter short and to the point?
3. Does the letter focus on a clear purpose?
4. Is the purpose clearly stated in the letter's introduction?
5. Is the information relevant, accurate, and appropriate?
6. Does it make a substantive contribution to the literature?
7. Are the points supported with citable evidence?
8. Are references published works?
9. Is content timely?
10. Have you checked to make sure there are no disparaging/derogatory comments or attacks on the other authors?
11. Have you avoided repeating the original article at length in your letter?
12. Have you checked to make sure that the material does not duplicate previously stated arguments from other letters or publications?

# Practical session

## Writing a letter to editor



The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 DECEMBER 4, 2014 VOL. 371 NO. 23

Twelve or 30 Months of Dual Antiplatelet Therapy after Drug-Eluting Stents

Laura Mauri, M.D., Dean J. Kereiakes, M.D., Robert W. Yeh, M.D., Priscilla Driscoll-Shempp, M.B.A., Donald E. Cutlip, M.D., P. Gabriel Steg, M.D., Sharon-Lise T. Normand, Ph.D., Eugene Braunwald, M.D., Stephen D. Wiviott, M.D., David J. Cohen, M.D., David R. Holmes, Jr., M.D., Mitchell W. Krucoff, M.D., James Hermiller, M.D., Harold L. Dauerman, M.D., Daniel I. Simon, M.D., David E. Kandzari, M.D., Kirk N. Garratt, M.D., David P. Lee, M.D., Thomas K. Pow, M.D., Peter Ver Lee, M.D., Michael J. Rinaldi, M.D., and Joseph M. Massaro, Ph.D., for the DAPT Study Investigators*

**Focus on results interpretation and conclusion**

# Your task is to write a letter to editors for this article

- 5 groups of 3 students
- Work in group to write the letter
- Presentation of the first draft
- Discussion of difficulties and possible improvement

# What should you do first?

# Look at the editor website and read the instructions!!!

- Letters in reference to a *Journal* article must not exceed **175 words** (excluding references), and must be received **within three weeks** after publication of the article. Articles are available for selection on the submission site on the print publication date each Thursday and remain for three weeks. If you are responding to an Online First article that does not have a print publication date, the article will be listed under "Online Articles."

- A letter can have **no more than five references** and **one figure or t**able.

- A letter can be signed by **no more than three authors**.

# Discussion and feedback

# Example of the letter we submitted

**Submitted to the New England Journal of Medicine**

The DAPT study, assessing the impact of long-term dual antiplatelet therapy after coronary stents, was recently published in the NEJM1. However, the reporting of the results is misleading. The major information--increase by 36% [HR=1.36; 95% CI 1.00-1.85] in any cause of death after long-term therapy--was not mentioned in the abstract conclusion. Such "spin" can greatly affect readers' interpretation2. Information in documents related to the study (press release, study website) was also distorted. Information for patients reporting that "The death rate was numerically higher (...), but additional research that investigated this finding revealed that it was likely due to chance" and recommending that patients continue the dual treatment, is shocking.

The authors provided a convoluted explanation relying on a post-doc analysis implying that these results were related to an imbalance of patients with cancer. Considering the study size, such imbalance, if any, would question the randomization procedure and therefore the study itself. Another explanation could be that this treatment increases the number of cancers, a previously mentioned hypothesis3 not even cited in the discussion.

# Example of a letter accepted

- Mauri et al. (Dec. 4 issue)1 report a significant increase in the risk of cancer-related death in patients receiving a thienopyridine drug, as compared with placebo (0.62% vs. 0.28%, P=0.02), and a numerical excess in incident cancer (2.03% vs. 1.62%, P=0.14) (Table S8 in the Supplementary Appendix of the article, available at NEJM.org). Of the two thienopyridines used in this trial, only prasugrel has been associated with a significantly increased risk of incident cancer in a previous trial.2 The association of prasugrel treatment and new cancer diagnosis has also been specifically investigated by the Food and Drug Administration.3However, whether the signal of excess cancer events observed in the current trial occurred in patients receiving clopidogrel or prasugrel is not reported. Can the authors report the numbers of cancer-related deaths and cancers reported after randomization according to which thienopyridine each patient received?

  - Mauri L, Kereiakes DJ, Yeh RW, et al. Twelve or 30 months of dual antiplatelet therapy after drug-eluting stents. N Engl J Med 2014;371:2155-2166
  - Wiviott SD, Braunwald E, McCabe CH, et al. Prasugrel versus clopidogrel in patients with acute coronary syndromes. N Engl J Med 2007;357:2001-2015
  - Prasugrel. Silver Spring, MD: Food and Drug Administration (http://www.accessdata.fda.gov/drugsatfda_docs/nda/2009/022307s000_RiskR_P4.pdf).

# Case study

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 DECEMBER 4, 2014 VOL. 371 NO. 23

## Twelve or 30 Months of Dual Antiplatelet Therapy after Drug-Eluting Stents

Laura Mauri, M.D., Dean J. Kereiakes, M.D., Robert W. Yeh, M.D., Priscilla Driscoll-Shempp, M.B.A., Donald E. Cutlip, M.D., P. Gabriel Steg, M.D., Sharon-Lise T. Normand, Ph.D., Eugene Braunwald, M.D.,

# DAPT study

- The DAPT study randomized 9,961 patients to continue DAPT beyond 1 year after stent placement or to receive a placebo for 30 months.

- Continued therapy reduced the rates of stent thrombosis (0.4% vs.1.4%; $p<0.001$) and major adverse cardiovascular and cerebrovascular events (MACCEs) (2.1% vs. 4.1%; $p<0.001$) with an expected increase in the rate of moderate or severe bleeding (2.5% vs. 1.6%; $p=0.001$)..

- Continued therapy was associated with an increase of 36% in risk of all-cause mortality (2.0% vs. 1.5%; hazard ratio 1.36 [95% CI, 1.00 to 1.85]; P=0.05).
- However, this increased mortality was not reported in the abstract conclusions of the published report. We aimed to explore how these results were disseminated to the scientific community and the public.

# DAPT study

- The discussion included questionable explanations based on post-hoc analyses to clear the role of DAPT on this increased risk of mortality.
  - Split the analysis by cause of death, and focused on the increase in cancer-related death (0.62% vs 0.28%, p=0.02).
  - They interpreted this finding as being related to an imbalance at baseline in patients with a history of cancer before enrollment (9.8% vs 9.5%).
  - Post-hoc analysis excluding all deaths that could be related to cancer diagnosed before enrolment.

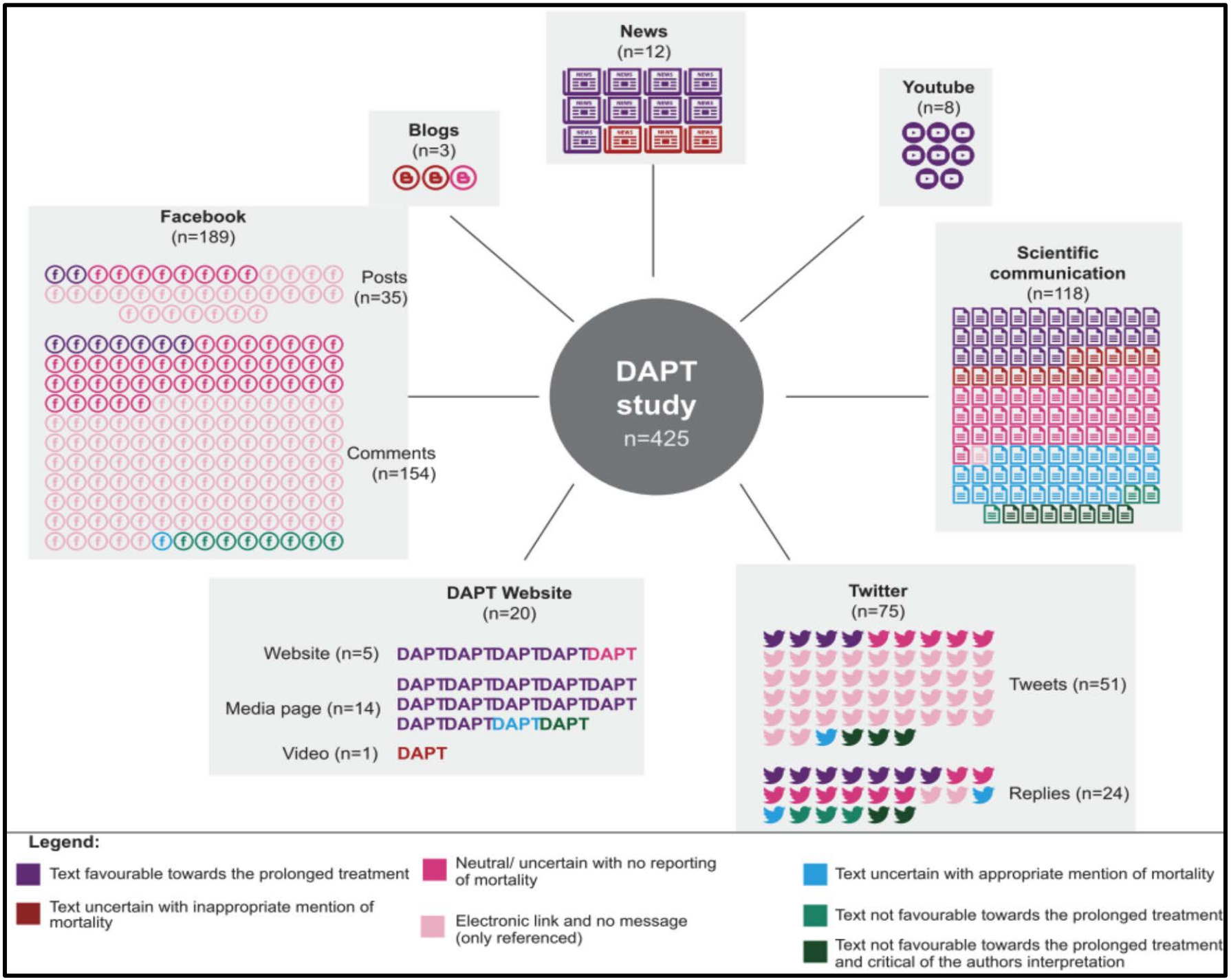
# Abstract conclusion

- Dual antiplatelet therapy beyond 1 year after placement of a drug-eluting stent, as compared with aspirin therapy alone, significantly reduced the risks of stent thrombosis and major adverse cardiovascular and cerebrovascular events but was associated with an increased risk of bleeding. (Funded by a consortium of eight device and drug manufacturers and others; DAPT ClinicalTrials.gov number, NCT00977938.).


It is important that patients who currently take a thienopyridine anti-clotting medication (clopidogrel or prasugrel) do not stop taking their medication. These drugs have demonstrated benefits in preventing blood clots that could lead to a heart attack or stroke. The benefits of continuing dual antiplatelet therapy for one year, according to current guidelines, far outweigh the risks.

# Methods

- We systematically searched ISI Web of Knowledge, Google Scholar, PubMed Commons, EurekAlert, Altmetric Explorer, Snap Bird, YouTube, the DAPT study website (www.daptstudy.org), and the *New England Journal of Medicine* website for items citing DAPT study results appearing from November 16, 2014 to June 10, 2015.
- Two reviewers independently evaluated the selected contents. Disagreement was resolved by consensus.


News
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Youtube
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Blogs
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Facebook
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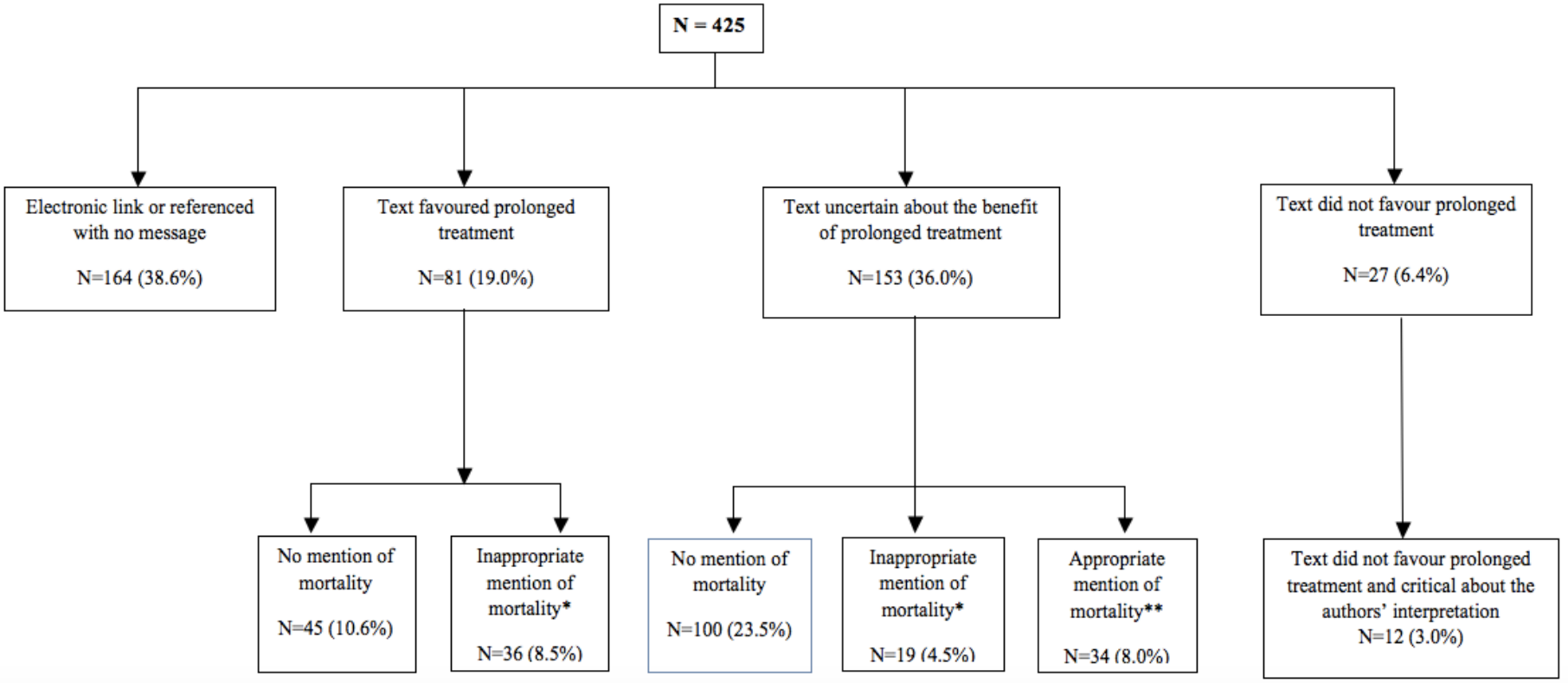
DAPTDAPTDAPTDAPT
Video (n=1)
DAPT
Twitter
(n=75)
Tweets (n=51)
Replies (n=24)
Legend:
Text favourable towards the prolonged treatment
Text uncertain with inappropriate mention of mortality
Neutral/ uncertain with no reporting of mortality
Electronic link and no message (only referenced)
Text uncertain with appropriate mention of mortality
Text not favourable towards the prolonged treatment
Text not favourable towards the prolonged treatment and critical of the authors interpretation


N = 425
Electronic link or referenced with no message
N=164 (38.6%)
Text favoured prolonged treatment
N=81 (19.0%)
Text uncertain about the benefit of prolonged treatment
N=153 (36.0%)
Text did not favour prolonged treatment
N=27 (6.4%)
No mention of mortality
N=45 (10.6%)
Inappropriate mention of mortality*
N=36 (8.5%)
No mention of mortality
N=100 (23.5%)
Inappropriate mention of mortality*
N=19 (4.5%)
Appropriate mention of mortality**
N=34 (8.0%)
Text did not favour prolonged treatment and critical about the authors' interpretation
N=12 (3.0%)

# Methods in Research on Research

**A presentation delivered at the**

**first MiRoR training event**
**October 19-21, 2016**
**Ghent, Belgium**

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