Finding and vetting science sources
Why Sources Matter

Sources interpret & contextualize science

Sources shape & create narrative

Sources bring humanity to science
Scientists might have discovered a fifth force of nature, changing our whole view of the universe

If the scientists are correct, then the Standard Model of physics could be due a major revision

The discovery is an unprecedented look at the distant universe (ESA/Hubble & NASA)
Evidence of a ‘Fifth Force’ Faces Scrutiny

A lab in Hungary has reported an anomaly that could lead to a physics revolution. But even as excitement builds, closer scrutiny has unearthed a troubling backstory.

This experimental apparatus at the Institute for Nuclear Research at the Hungarian Academy of Sciences in Debrecen was used to detect possible evidence of a new particle.
Places to find science sources

- Study authors
- Study reference sections
- Science databases
- Public Information Officers / PR
- Google
Thrombosis and Thrombocytopenia after ChAdOx1 nCoV-19 Vaccination

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SUMMARY

We report findings in five patients who presented with venous thrombosis and thrombocytopenia 7 to 10 days after receiving the first dose of the ChAdOx1 nCoV-19 adenoviral vector vaccine against coronavirus disease 2019 (Covid-19). The patients were health care workers who were 32 to 54 years of age. All the patients had high levels of antibodies to platelet factor 4–polyanion complexes; however, they had had no previous exposure to heparin. Because the five cases occurred in a population of more than 130,000 vaccinated persons, we propose that they represent a rare vaccine-related variant of spontaneous heparin-induced thrombocytopenia that we refer to as vaccine-induced immune thrombocytopenia.

The European Medicines Agency has approved five vaccines against coronavirus disease 2019 (Covid-19), and more than 600 million doses have been administered globally. In Norway, older adults living in institutional settings and health care professionals who are in close contact with patients with Covid-19 have been prioritized to receive the BNT162b2 mRNA Covid-19 vaccine (Pfizer–BioNTech). In addition, the ChAdOx1 nCoV-19 vaccine (AstraZeneca) has been administered to health care professionals younger than 65 years of age who do not have close contact with patients with Covid-19. As of March 20, 2021, when administration of the vaccine was paused, a total of 132,686 persons in Norway had received the first dose of the ChAdOx1 nCoV-19 vaccine and none had received the second dose.

Within 10 days after receiving a first immunization with ChAdOx1 nCoV-19,
testing, in patients who have unexpected symptoms after vaccination.

Although rare, VITT is a new phenomenon with devastating effects for otherwise healthy young adults and requires a thorough risk–benefit analysis. The findings of our study indicate that VITT may be more frequent than has been found in previous studies in which the safety of the ChAdOx1 nCoV-19 vaccine has been investigated.12

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

A data sharing statement provided by the authors is available with the full text of this article at NEJM.org.

We thank Siw Leiknes Ernstsen, M.D., of the Norwegian National Unit for Platelet Immunology at University Hospital of North Norway for important contributions to laboratory investigations of the cases.

REFERENCES


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Science databases

Databases containing published, peer-reviewed studies:

• Web of Science
• Scopus
• ScienceDirect
• JSTOR
• PsycINFO (social sciences)
• IEEE Xplore (engineering & computer science)
• DOAJ (Directory of Open Access Journals)
Science databases, continued

Unpublished pre-prints:
• Arxiv (physics & math)
• Medrxiv (medicine)
• Biorxiv (biological sciences)
• Psyarxiv (social sciences)
Cerebral venous sinus thrombosis associated with thrombocytopenia post-vaccination for COVID-19.

Castelli GP, Pognani C, Sozzi C, Franchini M, Vivona L.

PMID: 33845870  No abstract available.

Thrombotic Thrombocytopenia after ChAdOx1 nCov-19 Vaccination.

Greinacher A, Thiele T, Warkentin TE, Weisser K, Kyrie PA, Elchinger S.

PMID: 33835769

METHODS: We assessed the clinical and laboratory features of 11 patients in Germany and Austria in whom thrombosis or thrombocytopenia had developed after vaccination with ChAdOx1 nCov-19. ...Of the patients with one or more thrombotic events, 9 had cerebral venous ...

Thrombosis and Thrombocytopenia after ChAdOx1 nCov-19 Vaccination.


PMID: 33835768

We report findings in five patients who presented with venous thrombosis and thrombocytopenia 7 to 10 days after receiving the first dose of the ChAdOx1 nCov-19 adenoviral vector vaccine against coronavirus disease 2019 (Covid-19). ...Because the five cases occurred ...
Public information officers / PR

- Hospitals
- Universities
- Non-profits
- Government
- PR firms
Google

About 5,000,000 results (0.83 seconds)

https://www.nature.com › news › article
How could a COVID vaccine cause blood clots? Scientists ...
4 days ago — ... unusual clotting and the Oxford–AstraZeneca coronavirus vaccine. ... a teacher in Granada, Spain, with the Oxford-AstraZeneca vaccine.

https://www.wsj.com › World › Europe
Scientists Say They Found Cause of Rare Blood Clotting ...
Mar 19, 2021 — “Nothing but the vaccine can explain why these individuals had this immune response,” Prof. Holme said. Norway's health authority cited the ...

https://www.sciencemediacentre.org › qa-with-vaccine-s...
Q&A with vaccine safety and thrombosis experts | Science ...
6 days ago — Prof Adam Finn, Professor of Paediatrics, University of Bristol. Prof Beverley Hunt, Professor of Thrombosis and Haemostasis, King's College ...

https://www.sciencemediacentre.org › expert-reaction-t...
expert reaction to preprint looking at blood clotting events ...
Mar 30, 2021 — ... patients who exhibited blood clotting events following vaccination with the Oxford-AstraZeneca COVID-19 vaccine. Prof Adam Finn, Professor ...
Key Things To Consider When Considering Sources

• Does this source have expertise in the particular subject you’re covering?
• Does this source seem well-respected? Do they collaborate with others in the field? What does their CV look like?
• If this source is contentious, why are they contentious?
• Does this source have any conflict of interest red flags?
Epidemiologist & Health Economist. Health Policy & Justice. Senior Fellow, FAS. Former 16 yrs @Harvard. @JohnsHopkins & @HarvardEPI alum. COVID updates Jan’20-

📍 Washington DC & Virginia

Joined January 2009

8,630 Following  483.4K Followers
Research Narrative:

[Name], a nutritionist and epidemiologist, is an Instructor of Medicine faculty at Harvard Medical School and Brigham and Women’s Hospital, and Founder and Director of the Campaign for Cancer Prevention. His research primarily focuses on obesity and nutritional risk factors for diabetes, heart disease, and cancer, as well as translation of research for population prevention and global health.
This Harvard Epidemiologist Is Very Popular on Twitter. But Does He Know What He’s Talking About?

By Tom Bartlett | April 17, 2020
Key Things To Consider When Considering Sources

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• Does this source seem well-respected? Do they collaborate with others in the field? What does their CV look like?
• If this source is contentious, why are they contentious?
• Does this source have any conflict of interest red flags?
Reasons sources can be contentious

- Promote themselves / their ideas even when not supported by scientific consensus
- Bad reputation due to behavior (abuse, harassment, etc)
- Push against dogma in an established field
- Unconventional in some other way
Key Things To Consider When Considering Sources

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• Does this source seem well-respected? Do they collaborate with others in the field? What does their CV look like?
• If this source is contentious, why are they contentious?
• Does this source have any conflict of interest red flags?
Red Flags for Conflict-of-Interest

- Source receives money from, or has consulted for, companies or advocacy organizations or has been on a speaker’s bureau
- Source discloses potential conflicts of interest on research papers or conference abstracts
- Source is developing or sells products
Avoid False Balance / False Equivalency

• False balance happens when journalists present an issue as being more balanced between opposing viewpoints than the evidence supports.

• False balance often arises in stories about controversies that persist among the general public even though the science on the issue is clear-cut — such as climate change and childhood vaccine safety.

• Check to see if your writers are equating ideas that may have different levels of merit.

• Be wary of patient anecdotes, especially if those anecdotes are being framed as medical evidence.
A wonder drug's dark side

Hundreds of thousands of teen girls in Canada have safely taken Gardasil, a vaccine shown to prevent HPV. But a Star investigation has found that since 2008, at least 60 Canadians experienced debilitating illnesses after inoculation. Patients and parents say the incidents point to the importance of full disclosure of risks.
How the Toronto Star massively botched a story about the HPV vaccine — and corrected the record

By Julia Belluz  |  @juliaoftoronto  |  Updated Feb 21, 2015, 5:01pm EST

Joe Roedie/Getty Images

If there was ever a textbook case in how to botch a health story, the Toronto Star's investigation into the "dark side of the HPV vaccine" is it. The report not only misrepresented
Summary

• Sources can make or break a story.
• Journalists can find expert sources through studies, database & Google searches, and by asking scientists and PIOs / PR for recommendations.
• Consider how relevant a source’s expertise is, whether they seem well-respected, if they are controversial and if they have conflicts of interest.
• Avoid false balance by ensuring that perspectives are presented in ways that are proportional to the evidence supporting them.

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