

Good press release criteria

(or –we know that academics can be guilty of misleading the public about their research findings; how can we help press officers get the story better?)

The way it works

1. Research gets done
2. Research gets published
3. Press release might get written by journal/research institute/ funder or a combination
4. Journalists report press release
5. Public learn about new research and healthcare advances



AFP/GETTY IMAGES

Statins can cut heart risk even in 'healthy' patients

By Rebecca Smith
Medical Editor

MILLIONS of people could cut their risk of heart attack and stroke by taking statins even if their cholesterol levels are normal, a study has found.

The guidelines on which patients receive the cholesterol-lowering drugs may have to be redrawn, experts said, in light of the trial's "astonishing" findings.

The researchers gave 17,800 people with normal cholesterol levels a powerful new type of statin. They found their risk of a heart attack was reduced by 54 per cent and that of a stroke by 48 per cent.

Their combined risk of heart attack, stroke and heart-related death fell by 47 per cent, as did the likelihood of undergoing surgery.

The researchers, led by Dr Paul Ridker, from Harvard Medical School in Boston, were expecting to find a reduced risk of about 25 per cent.

Dr Terry McCormack, a GP in Whitby, North Yorks, and former chairman of the Primary Care Cardiovascular Society, said the findings were "astonishing".

"These are people who have

king? PAGE 19



Fashion
Hilary
Alexander
Supermarket
chic sweeps
the aisles

PAGE 22



Health
Anna van
Praagh

“Statin cuts heart attack risk in women with ‘normal’
cholesterol”

Daily Telegraph, 18/11/09

“The new statin drug that cuts the risk of heart attacks and
strokes for EVERYONE”

Daily Mail, 10/11/09

“Drugs could save thousands from heart attacks”

Guardian, 10/11/09

A new statin drug dramatically cuts the number of heart attacks and strokes, even for people without high cholesterol.

In a major trial, daily treatment with Crestor **slashed the rate of heart problems and deaths by 44 per cent.**

Crucially, the U.S. study involved those who would not normally be considered at risk of heart problems....

Those taking Crestor, also known as rosuvastatin, were actually **20 per cent less likely to die from any cause.**

The results were **so dramatic** that the trial was stopped in March, halfway through its planned four-year run, because it was considered unethical to keep giving placebos to half the patients....

Dr Sarah Jarvis, women's health spokesman for the Royal College of General Practitioners, said the Jupiter findings were '**extremely exciting**' and meant hsCRP levels were becoming an important measure of heart health. She said: 'The study shows a 50 per cent reduction in LDL for all patients, and we've never had a big enough study to demonstrate this in women before.

'This high-intensity statin **saves lives with safety and tolerability levels that other statins can't match.** (Daily Mail)

Statins, the drugs already prescribed to people with high cholesterol, could be offered to many more who have no obvious risk of heart disease following the results of a trial published yesterday...

Researchers had expected there might be a modest improvement in their prospects, but the trial was stopped in early in March when it became clear that the **risk of heart attacks, stroke or heart related death in those placed on the statin was nearly halved**...

The trial, undertaken by the drug company AstraZeneca, involved rosuvastatin, known by the brand name Crestor. Almost 18 000 people were recruited in 26 countries. The largest contingent, more than 16%, came from Britain. They should have been monitored for three and a half years, but, because of the **strongly positive results**, they were typically followed up for only 1.9 years.” (Guardian)

JUPITER trial

- NEJM November 08
- Published in tandem with AHA meeting
- 17,800 patients randomised to statin or placebo
- “astonishing”
- “remarkable”

- **Toronto, Ontario (November 9, 2008)** – Results of the JUPITER study, released today at the American Heart Association meeting in New Orleans, suggest that seemingly healthy Canadians may be saved from heart attacks, strokes, or even death if they are screened for elevated hsC-reactive protein (hsCRP) and successfully lower their cholesterol levels, even when their cholesterol levels are considered normal. Nearly one half of all cardiovascular events occur in people who are apparently healthy and who have low or normal levels of low density lipoprotein cholesterol (LDL-C), a traditional indicator of cardiovascular risk¹.
- CRESTOR 20mg significantly reduced first major cardiovascular events in the JUPITER study by 44% ($p < 0.00001$)⁶
- A decrease in the combined risk of cardiovascular death, heart attack or stroke by nearly half (47%) ($p < 0.00001$)⁷
- A decrease in the risk of heart attack by more than half (54%) ($p = 0.0002$)⁸
- A 65% reduction in non-fatal heart attacks ($p < 0.0001$)⁹
- A decrease in the risk of stroke by nearly half (48%) ($p = 0.002$)¹⁰
- Reduced total mortality by 20%, a unique finding for statins in a population without established CHD ($p = 0.02$)¹¹
- The reduction in first CV events was accompanied by a 50% reduction in LDL-C together with a 4% increase in HDL-C and a 37% decrease in hsCRP.¹²
- CRESTOR 20mg was well tolerated in nearly 9,000 patients during the course of the study, with a safety profile similar to placebo (AstraZeneca press release)

From the JUPITER data

- Raised CRP
- Men 50+, women 60+
- Any death R 198/8901 2.22%
- Any death P 247/8901 2.27%

fair reporting?

- the journalists reported the press release
- the press release didn't explain
- the exclusion criteria,
- the increased risk of diabetes,
- the absolute risk rather than the relative risk
- the lack of long term safety data

WOSCOPS press release

“ People with high cholesterol can rapidly reduce their risk of having a first-time heart attack by 31 per cent and their risk of death by 22 per cent, by taking a widely prescribed drug called pravastatin sodium. This is the conclusion of a landmark study presented today at the annual meeting of the American Heart Association. The results appear in the 16th November edition of the *New England Journal of Medicine*...”
(Glasgow University press release, 15/11/95)

John-Arne Skolbekken *BMJ* 1998;

- Yet another way of stating the facts would be to say that patients with angina or after a myocardial infarction may improve their probability of avoiding coronary death from 91.5% to 95% by taking pravastatin, while people without prior coronary disease may improve their probability from 98.3% to 98.8% by taking pravastatin

...

- Medicine is not an exact science.
Therefore, 200 men without any prior heart disease have to swallow 357 700 tablets over five years to save one of them from dying from coronary heart disease. This is due to the fact that no exact knowledge exists as to whom of these 200 will benefit from the treatment.

our biases (many)

- Long history of intolerance to media reporting of science/health stories
(related to being a GP and press officer)

what are the problems?

what are the solutions?



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"A world without bias is too hard.
Would you settle for world peace?"

The Professionals

In an information market, who do we trust to give us fair information about health?

- Doctors/health professionals – typically criticize “the media”
- Doctors are typically highest rated for trust in the UK
- But who makes the health media?

Who else makes the health media?

Media outlets, journalists, the internet

- The PR industry
- Charities
- Pharmaceutical companies
- Researchers and journals, doctors and scientists)

But medical/scientific professionals...

- Fair reporting of effect of research
- Fair conclusions about the potential for use of research
- Contextualisation of research
- Helpful uses of statistics – eg absolute risk rather than relative risk
- WHO DO WE TRUST?

New superfood! 'super sage' headline

- “Can you tell me who writes the headers and what their qualifications are ? My concern is that a newspaper takes the heading and makes that into a story, not the research itself.” (Me).
- Our PR agency researches and writes the synopses. The Elsevier press office then approves the synopses and also requests approval from Publishing Editors and authors before it is included in one of the editions.(Lancet)

And then...

- Health reporters – even if experienced – don't write headlines
- May face pressure from news desk to write a story even when they consider the science poor or press release guilty of hype

Press Releases by Academic Medical Centers: Not So Academic?

Steven Woloshin, MD, MS; Lisa M. Schwartz, MD, MS; Samuel L. Casella, MPH; Abigail T. Kennedy, BA; and Robin J. Larson, MD, MPH

Background: The news media are often criticized for exaggerated coverage of weak science. Press releases, a source of information for many journalists, might be a source of those exaggerations.

Objective: To characterize research press releases from academic medical centers.

Design: Content analysis.

Setting: Press releases from 10 medical centers at each extreme of *U.S. News & World Report's* rankings for medical research.

Measurements: Press release quality.

Results: Academic medical centers issued a mean of 49 press releases annually. Among 200 randomly selected releases analyzed in detail, 87 (44%) promoted animal or laboratory research, of which 64 (74%) explicitly claimed relevance to human health. Among 95 releases about primary human research, 22 (23%) omit-

ted study size and 32 (34%) failed to quantify results. Among all 113 releases about human research, few (17%) promoted studies with the strongest designs (randomized trials or meta-analyses). Forty percent reported on the most limited human studies—those with uncontrolled interventions, small samples (<30 participants), surrogate primary outcomes, or unpublished data—yet 58% lacked the relevant cautions.

Limitation: The effects of press release quality on media coverage were not directly assessed.

Conclusion: Press releases from academic medical centers often promote research that has uncertain relevance to human health and do not provide key facts or acknowledge important limitations.

Primary Funding Source: National Cancer Institute.

Ann Intern Med. 2009;150:613-618.
For author affiliations, see end of text.

www.annals.org

Medical journalism is often criticized for what reporters cover (for example, preliminary work) and how they cover it (for example, turning modest findings into miracles) (1–4). Critics often place blame squarely on the media, pointing out that few journalists are trained to critically read medical research or suggesting that sensationalism is deliberate: Whereas scientists want to promote the truth, the media just want to sell newspapers.

But exaggeration may begin with the journalists' sources. Researchers and their funders, and even medical journals, often court media attention through press releases. The strategy works: Press releases increase the chance of getting media coverage (5, 6) and shape subsequent reporting (7). An independent medical news rating organization found that more than one third of U.S. health news stories seemed to rely solely or largely on press

and their affiliated press offices. We initially intended to compare press releases by research ranking, but because we found few differences, we report findings across the entire study sample, highlighting the few differences by rank where they exist.

Press Release Process

During 2006, a former medical school press officer conducted semistructured (15-minute) telephone interviews with "the person in charge" of media relations at the 20 centers. The interview script (Appendix, available at www.annals.org) covered release policy (how is research chosen?), production (writing, review, researcher's role), and an overall assessment (perceived pressure for media results, praise, or backlash).

Press releases by academic medical centres

Not so academic?

Annals Internal Medicine 2009;150:613-616

“Press releases from academic medical centres often promote research that has uncertain relevance to human health and do not provide key facts or acknowledge important limitations’

Study size/quantified results lacking

Little promotion of meta-analyses

PLOS

- “Misrepresentation of RCTs in press releases and news coverage: a cohort study”
- “Spin was identified in about half of press releases and media coverage. In multivariable analyses, the main factor associated with ‘spin’ was the presence of spin in the article abstract conclusion.”

Spin

- all press releases in Eurekaleart! database
Dec 09- March 10
- 498 press releases+subsequent coverage
- researchers overestimated the benefits of the experimental treatment from the press release as compared to full-text peer reviewed article half the time
- abstracts were as bad as press releases
- we need to think about ABSTRACTs too

From the abstract

Early diagnosis of lung cancer: evaluation of a community-based social marketing intervention

Thorax doi:10.1136/thoraxjnl-2011-200714

Results 21% (128/600) (95% CI 18% to 25%) of the targeted population recalled something about the campaign. Compared with a responder in the control area, the odds of a responder in the intervention area saying that they would visit their general practitioner and request a chest x-ray for a cough was 1.97 times (95% CI 1.18 to 3.31, $p=0.01$). Primary care chest x-ray referral rates increased by 20% in the targeted practices in the year following the intervention compared with a 2% fall in the control practices. The difference was highly significant, with an incidence rate ratio of 1.22 (95% CI 1.12 to 1.33, $p=0.001$). **There was a 27% increase in lung cancer diagnoses in the intervention area compared with a fall in the control area.** The incidence rate ratio was 1.42 (95% CI 0.83 to 2.44 $p=0.199$).

Conclusion This is encouraging early evidence that an awareness and early recognition initiative may facilitate lung cancer diagnosis.

Table 4 Numbers of new lung cancer diagnoses and x-rays (and practice populations) and incidence rates in the 12 months before (March 2007–February 2008) and 12 months after (March 2008–February 2009) the intervention

		Area		IRR Int versus Cont	95% CI for IRR		p Value
	Outcome	Control (n = 9 practices)	Intervention (n = 11 practices)				
Time							
Before	Number of lung cancer diagnoses	47	59	0.81	0.55	1.19	0.288
	Population at risk	43 444	67 119				
	Rate/100 000 population/year	108	88				
After	Number of lung cancer diagnoses	42	75	1.16	0.79	1.69	0.452
	Population at risk	43 444	67 119				
	Rate/100 000 population/year	97	112				
Interaction*				1.42	0.83	2.44	0.199
Time							
Before	Number of x-rays	1605	2875	1.16	1.09	1.23	0.001
	Population at risk	43 444	67 119				
	Rate/100 000 population/year	3690	4280				
After	Number of x-rays	1573	3442	1.42	1.33	1.50	0.001
	Population at risk	43 444	67 119				
	Rate/100 000 population/year	3620	5130				
Interaction*				1.22	1.12	1.33	0.001

*The interaction term represents the change over time in the outcome (ie, after minus before) for the intervention area minus the same effect for the control area.

Cont, control; Int, intervention; IRR, incidence rate ratio.

- If the media are bad, it might just be because we are not good enough
- Press releases are often regurgitated in full/in part
- therefore, press releases ABSTRACTS and the DISCUSSION IN THE PAPER must be fair.
- Can we talk about this?

What pressures do press officers face?

- Academic institutions, journals and funders want a higher profile.
- Researchers want coverage and may be quite aggressive in insisting their work should be promoted.
- “I'm a press officer – it's my *job* to get press coverage!”
- Press officers' work is almost always evaluated (very unscientifically) by quantity, not quality – ie number of mentions in the media, not how well the press release was written which generated the coverage.
- Press officers may feel intimidated about questioning the science or the scientist if they don't have a science background. “If it's peer-reviewed, surely it *must* be 'good science'?”

Why might we need press release guidelines?

- Able to empower press officers
- Increase more responsible reporting
- Make researchers and journal editors more responsible about the papers they write and publish
- Less needlessly-worried – or falsely reassured – patients

Questioning the god of peer review

Please do!

Slow/expensive/fallable/prone to bias

JAMA 1998

420 reviewers on one paper with 8 errors

Average errors spotted: 2

16% spotted no problems

The good press release criteria: here's a start

- **Why are you publicising this research?**
- **Is a press release the best way?** (reaches more people but less easy to control – would giving the story to one trusted journalist be safer?)
- **Does the abstract or discussion make claims that are not backed by the actual study?** Is the researcher going much further than the study when you speak to them?

Extraordinary claims need extraordinary evidence

- **Does the study look at a large enough group?**
- **How does the paper discuss risk?** Your press release should ideally translate that into absolute risk.
- ***What else?*** Context? Language?



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Bustien

After years of worrying sick about the worried well, some days Rhona felt almost cynical

Carmel Turner

carmel.turner@headoffice.mrc.ac.uk

Margaret McCartney

margaret@margaretmccartney.com