


  
**Medicine & the Media**  
The Challenge of Reporting on Medical Research

**The Big Picture**

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**Problems with health messages are well known**

Messages are often exaggerated, oversimplified, lacking in context, or uncritical. Consequently, people often lack key information and context needed to make sense of claims or decide whether to believe them.

This matters because it may promote unrealistic beliefs about health risks, intervention effects, and lead to wasteful or harmful health decisions.

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**What do people need to make good decisions?**



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The early warning signs  
of colon cancer:

You feel great.  
You have a healthy appetite.  
You're only 50.

Swan Advertising Ad - New York Times

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**Problem**



There are a lot of exaggerated messages out there.

Messages that exaggerate the risk of disease and the benefit of treatment.

We worry that this makes people unnecessarily anxious and results in too much exposure to medical care.

Or just plain cynical.

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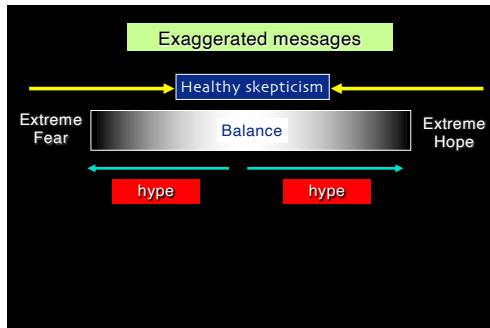
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Lots of people have an interest in exaggeration!

Manufacturers (drug, technology) need to sell their products

Academic institutions need publicity to raise funds

Meeting organizers need to attract scientists, advertisers and sponsors

Researchers need to show results to advance their careers

Media outlets compete for stories, advertisers, readers

Journalists compete for the front page

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Everyone has an interest in having **YOU** report their exaggerations

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Talk outline



1. Problems with sources
  - Press releases
  - Disease awareness campaigns
2. How to do better

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**Room for improvement**



Recent systematic review of articles assessing quality of new stories about the effects of health interventions found **few mention/report**

- Conflicts of interest (22%)
- Alternate interventions (36%)
- Potential harms (40%)
- Report absolute risks (17%)

Oxman, F1000Research, 2021

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**Researchers**

- Suggest the findings apply to more people than they really do.
- Are too certain about inherently weak science.
- Fail to acknowledge study limitations.

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**US News and World Report "Honor Roll" Centers**

**Academic medical center press releases**

- Most direct communication to journalists.
- Over one-third failed to quantify results.
  - When quantified, over half used formats known to exaggerate the magnitude of findings.
- Few limitations
  - Lots of promotion of animal / lab findings claiming human relevance. Most (90%) failed to caution about translation to human health.

Woloshin S, Schwartz LM. Academic medical center press releases: Not so academic? *J Gen Intern Med*. 2009

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**Exaggeration is not just in the U.S.**

**Leading Universities in the U.K.**

40% of press releases exaggerated about:  
 causation in observational studies  
 extrapolating animal research to humans

Sumner, P. et al. *BMJ*. 2014

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**Medical journal press releases too**

Same problem in medical journals  
 Interviewed their press officers

None had data presentation standards.  
 None required a statement about study limitations.

**Does exaggeration in press releases matter?**

Woloshin S, Schwartz LM. Press releases: Translating research into news. *JAMA*. 2002

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**BMJ**

BMJ 2012;344:g8164 doi: 10.1136/bmj.g8164 (Published 27 January 2012) Page 1 of 11

**RESEARCH**

**Influence of medical journal press releases on the quality of associated newspaper coverage: retrospective cohort study**

OPEN ACCESS

Lisa M Schwartz professor<sup>1</sup>, Steven Woloshin professor<sup>1</sup>, Alice Andrews instructor<sup>1</sup>, Therese A Stukel professor<sup>1,4</sup>

BMJ 2012;344

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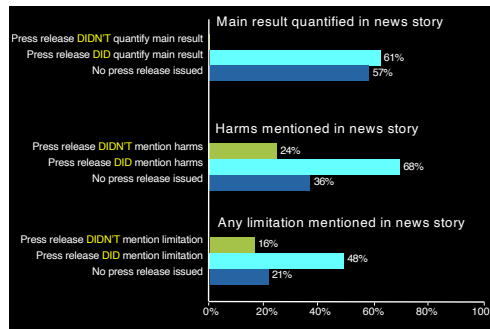
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**Improving the quality of press releases to improve the quality of the news**

Press releases matter but heir quality is highly variable and often poor.

We are deriving/validating criteria for best press release practices using the EQUATOR Network's methodological framework for developing reporting guidelines [funded by NIHCM]

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**PR-Rx – Reporting Guidance for better press releases**

**Draft set of items derived from published literature, expert knowledge**  
Minimum set of information that should be included in press release to help

Revise list based on review by expert panel of journalists, press officers, journal and media editors, researchers, members of public

Delphi process – 2 rounds of voting by large group of individuals in these domains (i.e., this item is essential/ desirable/ optional/ should omit)

Post guidance on EQUATOR website and disseminate

Evaluate effect in randomized trial

**CHALLENGE**  
Source of press releases may not want more transparent, balanced messages....

**Contact me if interested in being on Delphi panel!**

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**Talk outline**



- Problems with sources
  - Press releases
  - Disease awareness campaigns

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I'm not shy about speaking my mind...

I was putting artificial tears in my eyes time after time, all day long

So I asked my doctor about RESTASIS®

RESTASIS® (Cyclosporine Ophthalmic Emulsion) 0.05% helps increase and keep stable the natural tear film. It may be reduced by inflammation. **Chronic Dry Eyes**™ can increase the production of inflammatory eye drops in your duct plugs.

**Important Safety Information:**

RESTASIS® Ophthalmic Emulsion should not be used by patients with active eye infections and has not been studied in patients with a history of herpes viral infections of the eye. RESTASIS® should not be used while wearing contact lenses. If contact lenses are worn, they should be removed prior to use. The most common side effect is a temporary burning sensation. Other side effects include eye redness, discharge, watery eyes, eye pain, foreign body sensation, itching, stinging, and blurred vision.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit [www.fda.gov/medwatch](http://www.fda.gov/medwatch), or call 1-800-FDA-1088.

Please see next page for important product information.

**sk** Ask your doctor if RESTASIS® is right for you. For a \$20 rebate\* and a free 10 mL bottle, visit [sk.com](http://sk.com), or call 1-877-432-2222.



Drug companies spend billions marketing specific drugs in the U.S.

But people don't want treatment if they don't know they are sick.

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**How should you talk about CDE with your eye doctor?**

**My DRY EYES**

In addition to sharing your Dry Eye OSDI results from mydryeyes.com, be prepared to provide the following information:

- Any dry eye symptoms you're experiencing (itching, redness, and/or burning) and whether they're affecting your quality of vision.
- How long you've had the symptoms.
- How long you've been using eye drops.
- Any other health conditions or medications you're currently taking. For example, are you on birth control?
- How many types of contact lenses you wear.
- Whether you've ever had eye surgery.
- Whether you've ever had a contact lens fitting.
- Whether you've ever had a contact lens replacement.
- Whether you've ever had a contact lens fitting.
- Whether you've ever had a contact lens replacement.

If you think you may have CDE, your next steps should be to:

**SCHEDULE** a medical exam with your ophthalmologist or optometrist to see if you have CDE. Don't wait.

**GO TO** mydryeyes.com, TAKE a brief questionnaire for doctors use to help assess CDE the Dry Eye OSDI, and **SHOW** the results to your eye doctor.

Learn more about the Dry Eye OSDI: [mydryeyes.com](#)

**NOT marketing a drug but a disease.**

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**Selling disease**

**An effective strategy**  
 Take advantage of the blurry line between public health message and advertising – people react less sceptically than with drug ads.  
 Can do it anywhere - not limited to USA and New Zealand

**Can raise awareness and de-stigmatize disease**  
 Helpful if makes people aware of treatments for serious diseases  
 Rebranding embarrassing names makes it easier to seek help

Incontinence → Overactive bladder → OAB

**Can promote overdiagnosis and overtreatment**

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**Awareness campaigns: Good and bad effects**

Good	Bad
Destigmatize conditions	Excessive fear makes people feel more vulnerable and less resilient
Genuine education	Creates exaggerated perceptions about disease risk and intervention benefit
Improve public health	Create social imperative which deters individual informed choice
Smoking cessation Teach stroke symptoms	Overdiagnosis & overtreatment

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**The formula**

**Lower the bar**  
Draw the line for diagnosis in the grey zone of normal

**Raise the stakes**  
Highlight how the disease can really be dangerous

**Spin the evidence**  
Imply drug effectively treats all symptoms of disease (and avoid mention of side effects)

Woloshin & Schwartz, JAMA Internal Med, 2013

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**FDA's Guidance for Industry (2004 Draft)**

**Guidance for Industry  
"Help-Seeking" and Other Disease**

In general, disease awareness communications should:

- avoid encouraging self-diagnosis and self-treatment

U.S. Department of Health and Human Services  
Food and Drug Administration  
Center for Drug Evaluation and Research (CDER)  
Center for Biologics Evaluation and Research (CBER)  
Center for Devices and Radiological Health (CDRH)  
Washington, DC 20204  
FDA-2004-001

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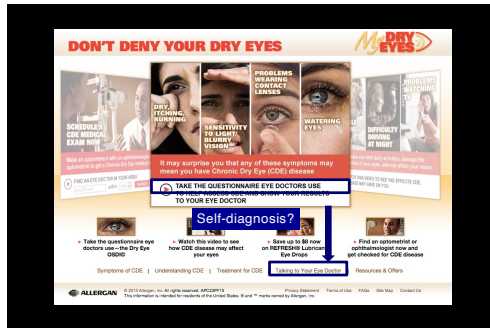
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**The Regulatory hole**

<p>FDA regulates ads if specific drugs mentioned or are uniquely identified.</p> <p><b>Branded DTC</b></p>	<p>Federal Trade Commission (FTC) regulates if no specific drug mentioned</p> <p><b>Unbranded "Awareness campaigns"</b></p> <p>FTC has never taken action on any disease awareness campaign</p>
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**Wish: Call for FDA-FTC meeting to set standards**

What is a responsible disease awareness campaign?

- Should quizzes be allowed (validate or ban)?
- Criteria for valid symptom lists?
- Does disease definition match approved indication?
- More limited claims about treatment
- Mention treatment harms?

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**A Clear-eyed View of Restasis and Chronic Dry Eye Disease**

Schwartz, Woloshin, JAMA IM 2018

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**WORK IN PROGRESS**

Unpublished review and content analysis of English-language disease awareness campaigns (2020) recognized by the WHO (20), Cochrane (17), or the US government (82)

Direct evidence of commercial involvement in 69% but this information was not clearly presented by 66% (49/74).

Information about benefits of tests and treatments much more common/prominent than harms

Of the 67 campaigns mentioning a specific diagnostic and/or screening test, 85% noted benefits, 9% noted their harms.

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**Problem – media can be co-opted by these campaigns**

**Policy Forum** | **PL/S REVIEW**

**Giving Legs to Restless Legs: A Case Study of How the Media Helps Make People Sick**

Steven Woloshin<sup>1</sup>, Lisa H. Schwartz<sup>2</sup>

**This is one of a series of articles on disease campaigns in the April 2006 issue.**

“When legs bothered to pain a woman last month she took a lot of pills. This may be about as bad as she can get, she said and she was right.”

It can be hard. Restless legs can feel bad or distract or even get in the way of a good night’s sleep. It can be more than just a nuisance. For some people, it can be a real problem. For some people, it can be a real problem. For some people, it can be a real problem.

... several experiences get labeled as pathologic, and by expanding the definition of disease to include restless legs, and presymptomatic forms (e.g., tingling with lower limb numbness) as a disease to itself. The decision about disease... through “disease awareness” campaigns and direct-to-consumer advertising, and by funding disease awareness groups. But disease also get presented as a disease not through the news media. News reports on a major source of health information for people [3]. Using journalistic approaches to write about new diseases objectively and look for the disease messages by the pharmaceutical industry, pharmaceutical companies.

**The Case of Restless Legs Syndrome**

It is not a case of how the media works in the context of a single disease—prevention offers the expected message of “restless legs” (see sidebar). In 2003, GlaxoSmithKline launched a campaign to promote awareness about restless legs syndrome, beginning with a press release about presentation of a new evidence-based presentation of the American Academy of Neurology meeting describing the early trial results of using gabapentin (a drug previously approved for Parkinson disease) for the treatment of restless legs [3]. Two months later, GlaxoSmithKline issued a press release stating: “New survey reveals evidence of a real neurological disease—restless legs syndrome—is keeping Americans awake at night.”

Woloshin, Schwartz, *PLoS Med*, April 2006

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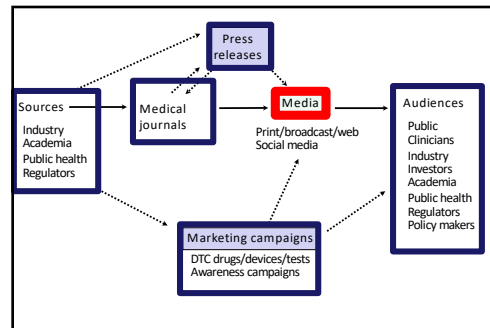
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How to do better



Too much enthusiasm

Too much certainty

Use numbers

Highlight cautions

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