


How to Not get Fooled by Medical Stories or Write Medical Stories that Fool

Beneficial to
Young and Old



Cultivate
the **RAINIER BEER** habit
It brings the glow of health and gives
a new lease on life.... No medicine
can equal it as a **TONIC**

SEATTLE BREWING & MALTING CO. Seattle, Wash.

now
she can
cope...

thanks to
Butisol
(SODIUM BUTABARBITAL)

"daytime sedative" for
everyday situational stress

When stress is situational—environmental pressure, worry over illness—the response often calls for an anxiolytic-relieving agent which has a proven and palatable calming action and is remarkably well tolerated. Butisol (sodium butabarbital) meets this therapeutic need.

After 30 years of clinical use... with a fine choice among many physicians for dependability and economy in mild to moderate anxiety.

Contraindications: Pregnancy or sensitivity to barbiturates.

Precautions: Exercise caution in moderate to severe hepatic disease. Elderly or debilitated patients may react with marked excitement or depression.

Adverse Reactions: Drowsiness or daytime sedative dose levels, skin rashes, "hangover" and somnolence are seldom seen.

Warnings: May be habit forming.

Usual Adult Dosage: As a daytime sedative, 15 mg. (1/4 gr.) to 30 mg. (1/2 gr.) 3 or 4 times daily as directed by physician. Tablets, 15 mg. (1/4 gr.), 30 mg. (1/2 gr.), 60 mg. (1 gr.) and 90 mg. (3/4 gr.) are available.

BUTISOL (Sodium Butabarbital) is a trademark of McNeil Laboratories, Inc., East Hanover, N.J.

McNEIL
McNeil Laboratories, Inc., East Hanover, N.J.



"PLEASE, DAVE..PLEASE DON'T LET
ME BE LOCKED OUT FROM YOU!"



Often a wife fails to realize that doubts due to one intimate neglect shut her out from happy married love

A man marries a woman because he loves her. So instead of blaming him if married love begins to cool, she should question herself. Is she truly trying to keep her husband and herself eager, happy married lovers? One most effective way to safeguard her dainty feminine allure is by practicing complete feminine hygiene as provided by vaginal douches with a scientifically correct preparation like "Lysol." So easy a way to banish the misgivings that often keep married lovers apart.

Germ destroyed swiftly

"Lysol" has amazing, proved power to kill germ-life on contact... truly cleanses the vaginal canal even in the presence of mucous matter. Thus "Lysol" acts in a way that makeshifts like soap, salt or soda never can.

Appealing daintiness is assured, because the very source of objectionable odors is eliminated.

Use whenever needed!

Yet gentle, non-caustic "Lysol" will not harm delicate tissue. Simple directions give correct douching solution. Many doctors advise their patients to douche regularly with "Lysol" brand disinfectant, just to insure feminine daintiness alone, and to use it as often as necessary. No greasy aftereffect.

For feminine hygiene, three times more women use "Lysol" than any other liquid preparation. No other is more reliable. You, too, can rely on "Lysol" to help protect your married happiness... keep you desirable!

For complete Feminine Hygiene rely on...
"Lysol"
A Concentrated Germ-Killer
Product of Lohs & Fink

NEW!...FEMININE HYGIENE FACTS!

FREE! New booklet of information by leading gynecological authority. Mail coupon to Lohs & Fink, 192 Bloomfield Avenue, Bloomfield, N. J.

Name _____
Address _____
City _____ State _____



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and Pharmaceutical Record.
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100th Year 1971

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Stay fit and Slim

So many women want to look better, to feel better in the new year, to be trimmer and slimmer. A simple remedy of amphetamine sulphate will make you look better, feel better, and be better in every way. It will give you the energy to carry on working throughout the year.

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Vancouver, BC, Canada

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We are all
KNOWLEDGE
brokers



“The best defense against
bullshit is vigilance.
So if you smell something,
say something.”



The Bullshit Asymmetry



The amount of energy needed to refute bullshit is an order of magnitude bigger than to produce it.



Ever wonder
if the
recommendations
from these shows
are evidence-based?



WE DID

Televised medical talk shows—
what they recommend and the evidence to support
their recommendations: a prospective observational study

Korownyk C, Kolber MR, McCormack J, Lam V, Overbo K, Cotton C, Finley
C, Turgeon RD, Garrison S, Lindblad AJ, Banh HL, Campbell-Scherer D,
Vandermeer B, Allan GM

Brit Med J 2014;349:g7346 doi: 10.1136/bmj.g7346 (Published 17 December 2014)

Televised medical talk shows—what they recommend and the evidence to support their recommendations: a prospective observational study

	No (%) of recommendations	
	<i>The Dr Oz Show (n=479)</i>	<i>The Doctors (n=445)</i>
Benefit of recommendation mentioned	453 (94.6)	402 (90.3)
Benefit was specific	204 (42.6)	184 (41.3)
Magnitude of benefit mentioned	79 (16.5)	49 (11.0)
Possible harms mentioned	47 (9.8)	34 (7.6)
Cost mentioned	60 (12.5)	14 (3.1)
Potential conflict of interest declared or mentioned	1 time	3 times

“Believable” Evidence for Recommendations

The Dr Oz Show

evidence supported 46%

contradicted 15%

not found for 39%

believable or somewhat believable evidence 33%

The Doctors

evidence supported 63%

contradicted 14%

not found for 24%

believable or somewhat believable evidence supported 53%

BMJ 2014;349:g7346



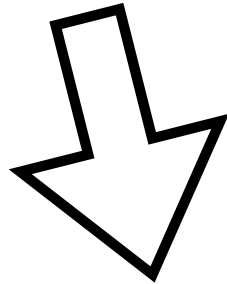
Dealing with Information Uncertainty

It's an imperfect world but
it's the only one we got

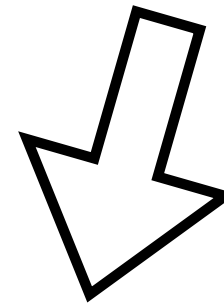
"Medicine is a science of uncertainty
and an art of probability."

- William Osler

Relevant and
useful
information



A lot of
bullshit



Drugs in the News

How well do Canadian newspapers report the good, the bad and the ugly of new prescription drugs?

by Alan Cassels, Merrilee Atina Hughes, Carol Cole,
Barbara Mintzes, Joel Lexchin and James McCormack

April 2003



Canadian Centre for Policy Alternatives



Some research has gone into evaluating drug stories

Drugs in the news: an analysis of Canadian newspaper coverage of new prescription drugs

Alan Cassels, Merrilee A. Hughes, Carol Cole, Barbara Mintzes, Joel Lexchin,
James P. McCormack

193 articles - 5 selected “new” drugs

100% - mentioned at least one benefit

2/3 - made no mention of possible side effects or harms

1/4 - of mentions of drug benefits and harms presented quantitative information

1/4 - of cases in which drug benefits and harms were quantified, the magnitude was presented only in relative terms

2/3 - of the articles gave no quantification of the benefits or harms

1/5 - reported only surrogate benefits

1/20 - mentioned contraindications - 1/3 mentioned drug costs

After exclusion of industry and government spokespeople, for only 3% was there any mention of potential COI

Scorecards we've developed to evaluate medical media. Does the story...

- Adequately discuss costs?
- Quantify potential benefits?
- Quantify potential harms?
- Evaluate quality of the evidence?
- Avoid disease-mongering?
- Establish true novelty of the idea?
- Establish true availability of the idea?
- Use independent sources & identify COI?
- Compare the new idea with existing options?
- Appear to rely on a news release?





Slow down, NIH & news media
...on SPRINT blood pressure study hype.

THE CULT OF
SURROGATE
OUTCOMES



Idolatry of the Surrogate

New podcast: Dr. John S. Yudkin on diabetes
overdiagnosis



A1C

Really? 1/2 of us have diabetes/pre-diabetes?

What does that mean? Hear another side to the
story

<http://www.healthnewsreview.org>



Does the story adequately discuss the costs of the intervention?

Does the story adequately quantify the benefits of the treatment/test/product/procedure?

Does the story adequately explain/quantify the harms of the intervention?

Does the story seem to grasp the quality of the evidence?

Does the story commit disease-mongering?

Does the story use independent sources and identify conflicts of interest?

Does the story compare the new approach with existing alternatives?

Does the story establish the availability of the treatment/test/product/procedure?

Does the story establish the true novelty of the approach?

Does the story appear to rely solely or largely on a news release?

YES, NO, N/A

Red flags rise up in our eyes when we see terms such as:

breakthrough

could become the new standard of care

cure

first-of-its-kind

game-changer

Holy Grail

magic

miracle

simple blood test

this might/may/could lead to. (which means, of course, that “might/
may/could not” applies as well)

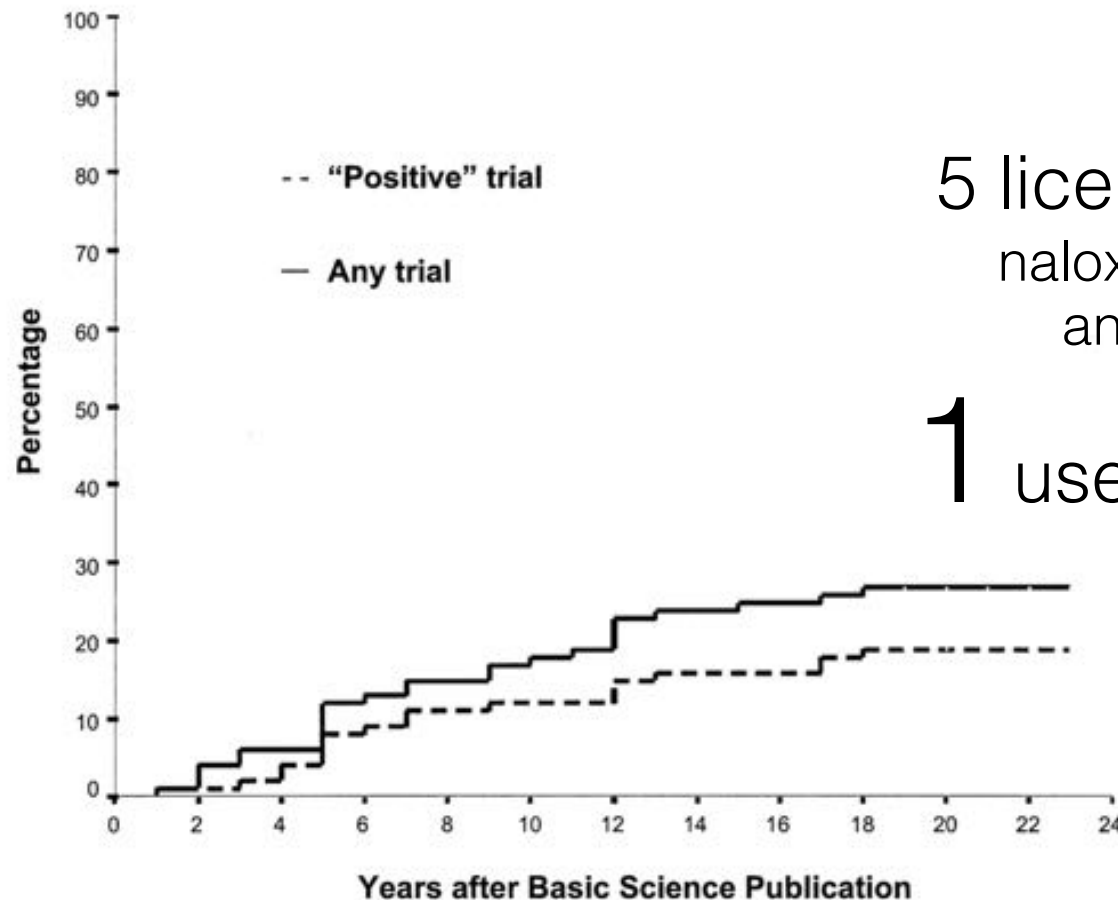


It's simple, just ignore media reports...but

“90% of the general public gets most of its
information about science from the mass media”

“press releases are a major source of
information for 1/3 of medical reports in US
Newspapers”

101 articles, published between 1979 and 1983
in six major basic science journals, which clearly
stated that the technology studied had
novel therapeutic or preventive promises



5 licensed for clinical use
naloxone, pergolide, alpha-1
antitrypsin, interleukin 2

1 used extensively - ACEI

Am J Med 2003;114:477-84

Misrepresentation of Randomized Controlled Trials in Press Releases and News Coverage: A Cohort Study

spin = specific reporting (intentional or unintentional) that emphasizes the beneficial effect of the experimental treatment

at least one kind of spin - primarily no acknowledgement of non statistically significant primary outcome, focus on within group comparisons, suggesting a p value >0.05 demonstrates equivalence

40% of the study abstracts - So this Starts the Process

47% of press releases

31% of press releases misinterpreted the results - 86% overestimated effect

The association between exaggeration in health related science news and academic press releases: retrospective observational study

Press releases (n=462) on biomedical and health-related science issued by 20 leading UK universities



“Although it is common to blame media outlets - our principle findings were that most of the inflation detected in our study did not occur de novo in the media but was already present in the text of the press releases produced by academics and their establishments”

”most of the responsibility for exaggeration must lie with the scientific authors”

Coffee could literally be a lifesaver

By Carina Storrs, Special to CNN

Updated 4:13 PM ET, Mon November 16, 2015



Photos: Coffee's health history

Coffee's health history: Where do we stand now? – It's thumbs up today, but the news on coffee has not always been positive. Take a look at the arguments for and against coffee through the centuries.

Top stories



FBI chief to testify before Congress



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at Speedy Glass.



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Did you know?

Many Woolly Mammoths have been discovered intact in permafrost.

JUN 8, 2015 @ 04:57 PM 11,585 VIEWS

The Little Black Book of Billionaire Secrets

Giant Study Boosts Januvia, Merck's \$6 Billion Drug



Matthew Herper, FORBES STAFF

I cover science and medicine, and believe this is biology's century. [FULL BIO](#)

Januvia, a widely used diabetes drug that generates \$6 billion in annual sales for maker Merck, does not increase patients' risk of being hospitalized for heart failure, a risk that did show up in clinical trials of competing drugs.

"We've teased this data backwards and forwards and everything comes up looking like the drug does not have a cardiovascular safety signal," Eric Peterson, a Duke University cardiologist who co-led the study, told a press conference at the annual meeting of the American Diabetes Association in Boston.



Adequately discuss costs?

Quantify potential benefits?

Quantify potential harms?

Evaluate quality of the evidence?

Avoid disease-mongering?

Establish true novelty of the idea?

Establish true availability of the idea?

Use independent sources & identify COI?

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