# البحث العلمي المنشور بين الجيد والرديء

سيناء عبد المحسن العقيل
استاذ مشارك بقسم الصيدلة الاكلينكية
كلية الصيدلة

Salageel@ksu.edu.sa

@alaqeels

# Voting

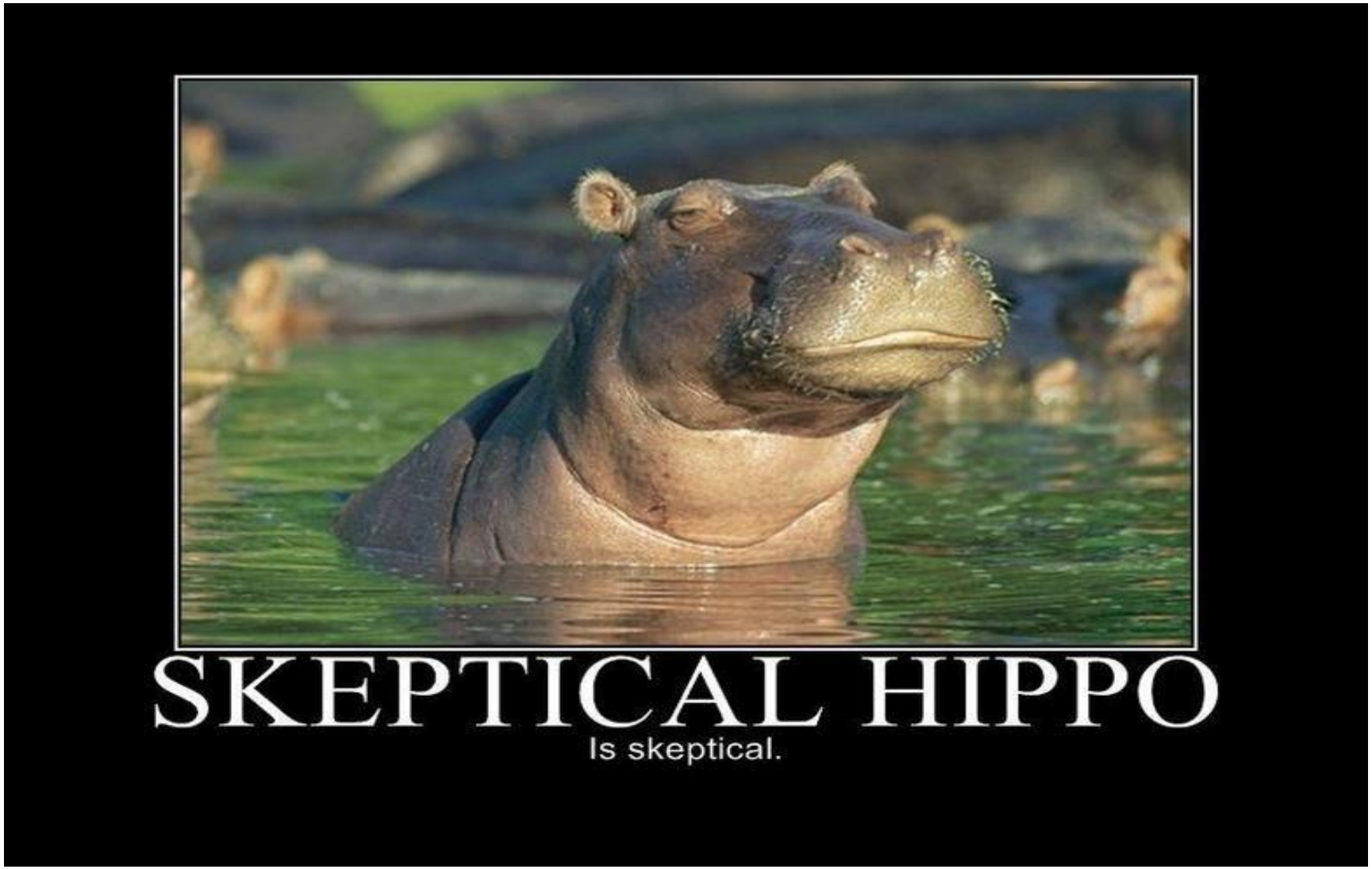
www.Menti.com

Code: 349874

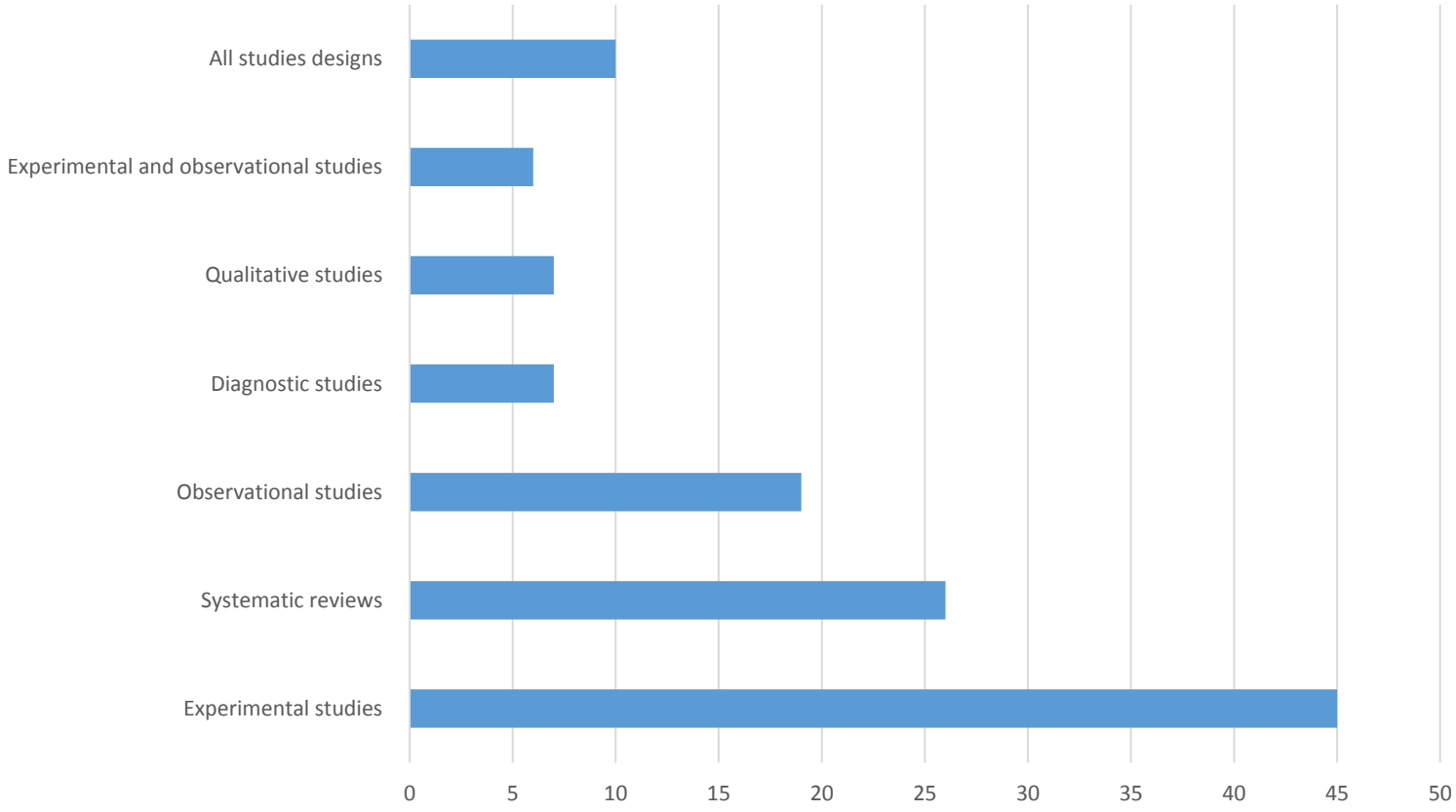

A
B
C
simulation
√1000
X+Y=Z
Collecting data
A
test
B

# Peer Review  Process

**William Whewell, peer-review pioneer**
**Source:** N AT U R E, VO L 5 3 2 .  2 0 1 6


SKEPTICAL HIPPO
Is skeptical.

# Critical appraisal tools to evaluate the quality of published research




Source:BMC Med Res Methodol. 2004; 4: 22.. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC521688/

# Critical appraisal tools example

**NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE**
**COHORT STUDIES**

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability

**Selection**

1) Representativeness of the exposed cohort
   - a) truly representative of the average _____ (describe) in the community ☐
   - b) somewhat representative of the average _____ in the community ☐
   - c) selected group of users eg nurses, volunteers
   - d) no description of the derivation of the cohort

2) Selection of the non exposed cohort
   - a) drawn from the same community as the exposed cohort ☐
   - b) drawn from a different source
   - c) no description of the derivation of the non exposed cohort

3) Ascertainment of exposure
   - a) secure record (eg surgical records) ☐
   - b) structured interview ☐
   - c) written self report
   - d) no description

4) Demonstration that outcome of interest was not present at start of study
   - a) yes ☐
   - b) no

**Comparability**

1) Comparability of cohorts on the basis of the design or analysis
   - a) study controls for _____ (select the most important factor) ☐
   - b) study controls for any additional factor ☐ (This criteria could be modified to indicate specific control for a second important factor.)

**Outcome**

1) Assessment of outcome
   - a) independent blind assessment ☐
   - b) record linkage ☐
   - c) self report
   - d) no description

2) Was follow-up long enough for outcomes to occur
   - a) yes (select an adequate follow up period for outcome of interest) ☐
   - b) no

3) Adequacy of follow up of cohorts
   - a) complete follow up - all subjects accounted for ☐
   - b) subjects lost to follow up unlikely to introduce bias - small number lost - > ____ % (select an adequate %) follow up, or description provided of those lost) ☐
   - c) follow up rate < ____% (select an adequate %) and no description of those lost
   - d) no statement

# Critical appraisal tools example

**NEWCASTLE - OTTAWA QUALITY ASSESSMENT SCALE**
**CASE CONTROL STUDIES**

Note: A study can be awarded a maximum of one star for each numbered item within the Selection and Exposure categories. A maximum of two stars can be given for Comparability.

**Selection**

1) Is the case definition adequate?
   a) yes, with independent validation ☐
   b) yes, eg record linkage or based on self reports
   c) no description

2) Representativeness of the cases
   a) consecutive or obviously representative series of cases ☐
   b) potential for selection biases or not stated

3) Selection of Controls
   a) community controls ☐
   b) hospital controls
   c) no description

4) Definition of Controls
   a) no history of disease (endpoint) ☐
   b) no description of source

**Comparability**

1) Comparability of cases and controls on the basis of the design or analysis
   a) study controls for _____ (Select the most important factor.) ☐
   b) study controls for any additional factor ☐ (This criteria could be modified to indicate specific control for a second important factor.)

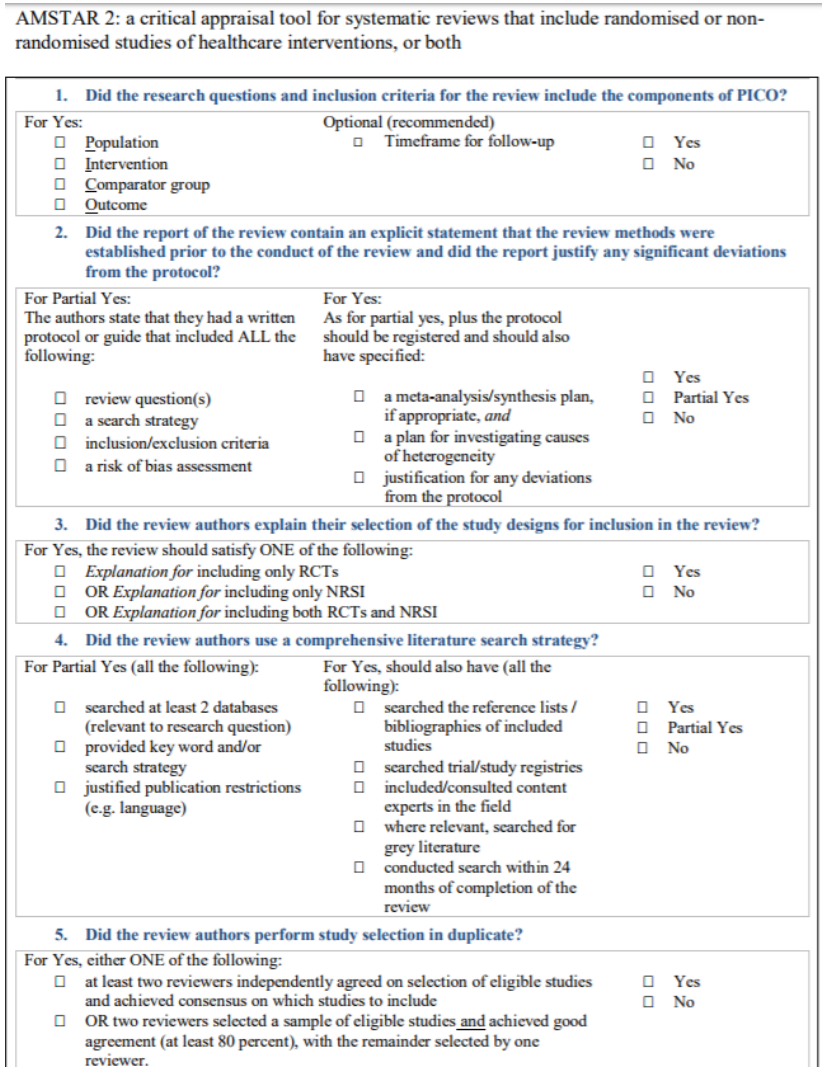
**Exposure**

1) Ascertainment of exposure
   a) secure record (eg surgical records) ☐
   b) structured interview where blind to case/control status ☐
   c) interview not blinded to case/control status
   d) written self report or medical record only
   e) no description

2) Same method of ascertainment for cases and controls
   a) yes ☐
   b) no

3) Non-Response rate
   a) same rate for both groups ☐
   b) non respondents described
   c) rate different and no designation

# Critical appraisal tools example



AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both

**1. Did the research questions and inclusion criteria for the review include the components of PICO?**

For Yes:
- ☐ Population
- ☐ Intervention
- ☐ Comparator group
- ☐ Outcome

Optional (recommended)
- ☐ Timeframe for follow-up

☐ Yes
☐ No

**2. Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?**

For Partial Yes:
The authors state that they had a written protocol or guide that included ALL the following:
- ☐ review question(s)
- ☐ a search strategy
- ☐ inclusion/exclusion criteria
- ☐ a risk of bias assessment

For Yes:
As for partial yes, plus the protocol should be registered and should also have specified:
- ☐ a meta-analysis/synthesis plan, if appropriate, *and*
- ☐ a plan for investigating causes of heterogeneity
- ☐ justification for any deviations from the protocol

☐ Yes
☐ Partial Yes
☐ No

**3. Did the review authors explain their selection of the study designs for inclusion in the review?**

For Yes, the review should satisfy ONE of the following:
- ☐ *Explanation for* including only RCTs
- ☐ OR *Explanation for* including only NRSI
- ☐ OR *Explanation for* including both RCTs and NRSI

☐ Yes
☐ No

**4. Did the review authors use a comprehensive literature search strategy?**

For Partial Yes (all the following):
- ☐ searched at least 2 databases (relevant to research question)
- ☐ provided key word and/or search strategy
- ☐ justified publication restrictions (e.g. language)

For Yes, should also have (all the following):
- ☐ searched the reference lists / bibliographies of included studies
- ☐ searched trial/study registries
- ☐ included/consulted content experts in the field
- ☐ where relevant, searched for grey literature
- ☐ conducted search within 24 months of completion of the review

☐ Yes
☐ Partial Yes
☐ No

**5. Did the review authors perform study selection in duplicate?**

For Yes, either ONE of the following:
- ☐ at least two reviewers independently agreed on selection of eligible studies and achieved consensus on which studies to include
- ☐ OR two reviewers selected a sample of eligible studies and achieved good agreement (at least 80 percent), with the remainder selected by one reviewer.

☐ Yes
☐ No

NICE National Institute for Health and Care Excellence

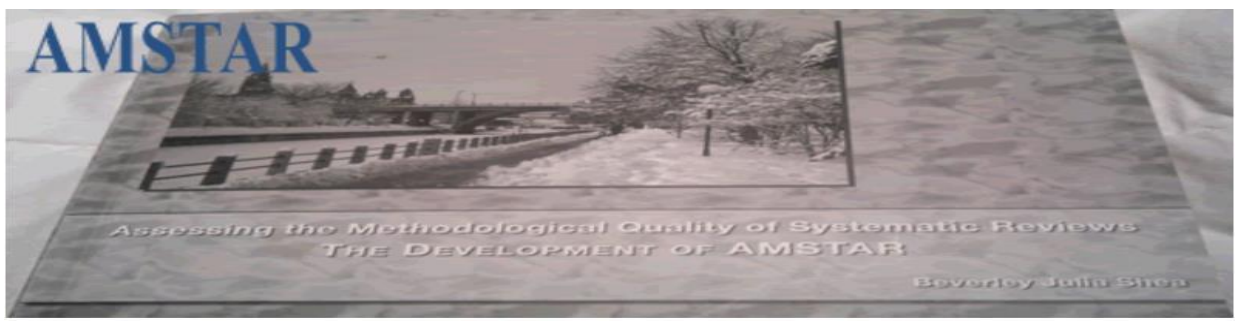
THE JOANNA BRIGGS INSTITUTE
Better evidence. Better outcomes.

CAMARADES
Research Collaborators Projects Events News Training Material Contact
Collaborative Approach to Meta Analysis and
·C·A·M·A·R·A·D·E·S·
Review of Animal Data from Experimental Studies

Critical Appraisal Skills Programme

Cochrane

SIGN



# Enhancing the QUAlity and Transparency Of health Research

## Your one-stop-shop for writing and publishing high-impact health research

find reporting guidelines | improve your writing | join our courses | run your own training course | enhance your peer review | implement guidelines

### Library for health research reporting

The Library contains a comprehensive searchable database of reporting guidelines and also links to other resources relevant to research reporting.

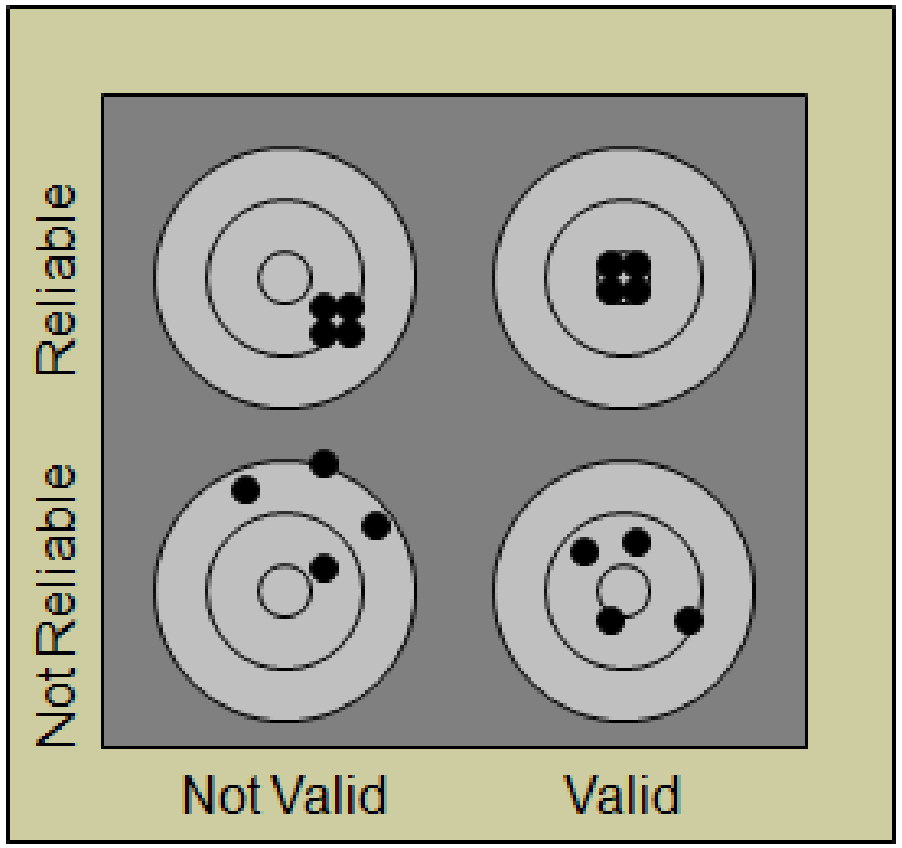
- Search for reporting guidelines
- Not sure which reporting guideline to use?
- Reporting guidelines under development
- Visit the library for more resources

### Reporting guidelines for main study types

| | | | |
|---|---|---|---|
| Randomised trials | CONSORT | Extensions | Other |
| Observational studies | STROBE | Extensions | Other |
| Systematic reviews | PRISMA | Extensions | Other |
| Case reports | CARE | Extensions | Other |
| Qualitative research | SRQR | COREQ | Other |
| Diagnostic / prognostic studies | STARD | TRIPOD | Other |
| Quality improvement studies | SQUIRE | | Other |
| Economic evaluations | CHEERS | | Other |
| Animal pre-clinical studies | ARRIVE | | Other |
| Study protocols | SPIRIT | PRISMA-P | Other |
| Clinical practice guidelines | AGREE | RIGHT | Other |

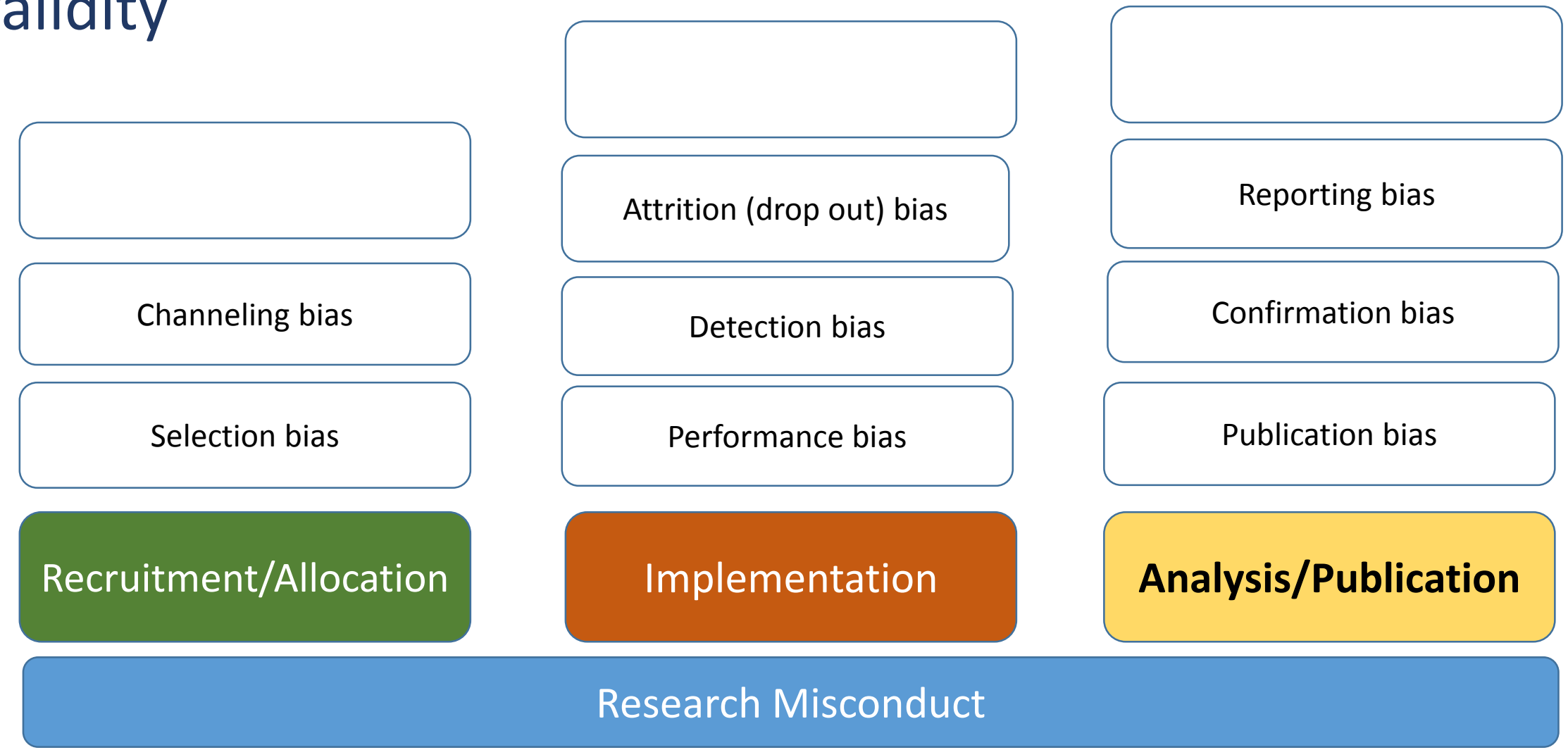

Visit our new browse reporting guidelines by specialty page

# Valid and reliable research




Picture Source: http://businessoverbroadway.com/validity-cem-program

# Threats to validity



# Selection bias: the classic example



## COFFEE AND CANCER OF THE PANCREAS

BRIAN MACMAHON, M.D., STELLA YEN, M.D., DIMITRIOS TRICHOPOULOS, M.D., KENNETH WARREN, M.D., AND GEORGE NARDI, M.D.

**Abstract** We questioned 369 patients with histologically proved cancer of the pancreas and 644 control patients about their use of tobacco, alcohol, tea, and coffee. There was a weak positive association between pancreatic cancer and cigarette smoking, but we found no association with use of cigars, pipe tobacco, alcoholic beverages, or tea. A strong association between coffee consumption and pancreatic cancer was evident in both sexes. The association was not affected by controlling for cigarette use. For the sexes combined, there was a significant dose-response relation ($P \sim 0.001$); after adjustment for cigarette smoking, the relative risk associated with drinking up to two cups of coffee per day was 1.8 (95 per cent confidence limits, 1.0 to 3.0), and that with three or more cups per day was 2.7 (1.6 to 4.7). This association should be evaluated with other data; if it reflects a causal relation between coffee drinking and pancreatic cancer, coffee use might account for a substantial proportion of the cases of this disease in the United States. (N Engl J Med. 1981; 304:630-3.)

# Selection bias: the classic example

630 THE NEW ENGLAND JOURNAL OF MEDICINE March 12, 1981

## COFFEE AND CANCER OF THE PANCREAS

BRIAN MACMAHON, M.D., STELLA YEN, M.D., DIMITRIOS TRICHOPOULOS, M.D., KENNETH WARREN, M.D., AND GEORGE NARDI, M.D.

**Abstract** We questioned 369 patients with histologically proved cancer of the pancreas and 644 control patients about their use of tobacco, alcohol, tea, and coffee. There was a weak positive association between pancreatic cancer and cigarette smoking, but we found no association with use of cigars, pipe tobacco, alcoholic beverages, or tea. A strong association between coffee consumption and pancreatic cancer was evident in both sexes. The association was not affected by controlling for cigarette use. For the sexes combined, there was a significant dose-response relation ($P \sim 0.001$); after adjustment for cigarette smoking, the relative risk associated with drinking up to two cups of coffee per day was 1.8 (95 per cent confidence limits, 1.0 to 3.0), and that with three or more cups per day was 2.7 (1.6 to 4.7). This association should be evaluated with other data; if it reflects a causal relation between coffee drinking and pancreatic cancer, coffee use might account for a substantial proportion of the cases of this disease in the United States. (N Engl J Med. 1981; 304:630-3.)

OVER the past few decades, cancer of the pancreas has emerged as one of the most important neoplasias in human beings. It now accounts for approximately 20,000 deaths annually in the United States. Causative factors have been sought in several previous studies, but only cigarette smoking has emerged as a consistent, though relatively weak, exogenous risk factor. We report the results of a study that was planned to reevaluate the relation of this disease to smoking and to examine the role of alcohol consumption as a possible confounding variable. Data were also obtained on intake of tea and coffee — factors that have not been adequately investigated in this disease.

### METHODS

We conducted a case-control interview study. The cases were patients with histologic diagnoses of cancer of the exocrine pancreas who were in any of 11 large hospitals in the Boston metropolitan area and Rhode Island between October 1974 and August 1979. Patients with tumors of the islet cells, periampullary duodenal mucosa, or ampulla of Vater were not included. We identified 578 patients and interviewed 485 of them. Twenty patients died and 35 were discharged before an interview could be arranged; 78 were too sick to be interviewed, 14 had language difficulties, and 26 refused the interview. Also excluded from the analysis were eight nonwhite patients, four residents of countries other than the United States, eight patients older than 79 years, and 16 patients whose interview information was judged by the interviewer to be of questionable reliability. The analysis is based on data from the remaining 369 patients.

To assemble a control series, the interviewers also attempted to question all other patients who were under the care of the same physician in the same hospital at the time of an interview with a patient with pancreatic cancer. Either before the interview (if the information was known) or afterward, patients with diseases of the pancreas or hepatobiliary tract or diseases known to be associated with smoking or alcohol consumption were excluded. The principal diagnostic categories excluded (in addition to diseases of the biliary tract or pancreas) were cardiovascular disease, diabetes mellitus, respiratory or bladder cancer, and peptic ulcer. From a total of 1118 eligible patients, we interviewed 708; nine died and 131 were discharged before the interview, 179 were too ill, 26 had language problems, and 73 refused. After exclusion of 17 nonwhites, five foreign residents, four persons older than 79 years, and 30 persons whose interviews were judged to be unreliable, the control series used for the analysis consisted of 644 patients. Minor differences between tables in the stated numbers of cases and controls resulted from absence of specific items being analyzed in a few questionnaires.

The control series was composed of two principal diagnostic groups: 273 patients with cancer other than cancers of the pancreas and biliary tract, respiratory tract, or bladder and 371 patients with other disorders. Of the control patients with cancer, the tumor was in the breast in 65 patients, colon in 60, rectum in 25, stomach in 24, small intestine in nine, ovary in eight, prostate in eight, and cervix in seven; there were also 16 with melanoma and 15 with lymphoma. No other cancer was found in more than four subjects. Diagnoses in the controls without cancer were of a wide variety, although because of the nature of the practices of many of the physicians who were responsible for patients with cancer of the pancreas, patients with gastroenterologic conditions were probably overrepresented in relation to a general hospital population. The principal diagnoses were hernia in 70 patients; colitis, enteritis, or diverticulitis in 41; bowel obstruction, adhesions, or fistulae in 26; gastritis in 17; other gastroenterologic conditions in 47; benign tumors in 29; varicose veins or phlebitis in 21; genitourinary disorders in 20; neurologic disorders in 20; gynecologic disorders in 16; and other conditions in 54.

In the analyses, the patients with pancreatic cancer were compared with the control patients with cancer and independently with the control group without cancer. The findings were quite similar, and only the results with the combined control group are presented here.

Several questions in the interview probed the duration and intensity of smoking of cigarettes, cigars, and pipes. Questions on alcoholic beverages asked about the frequency of use before the onset of illness, the age span over which such use occurred, and the type of beverage used most frequently. The questions on tea and coffee were limited to the number of cups consumed in a typical day before the current illness was evident.

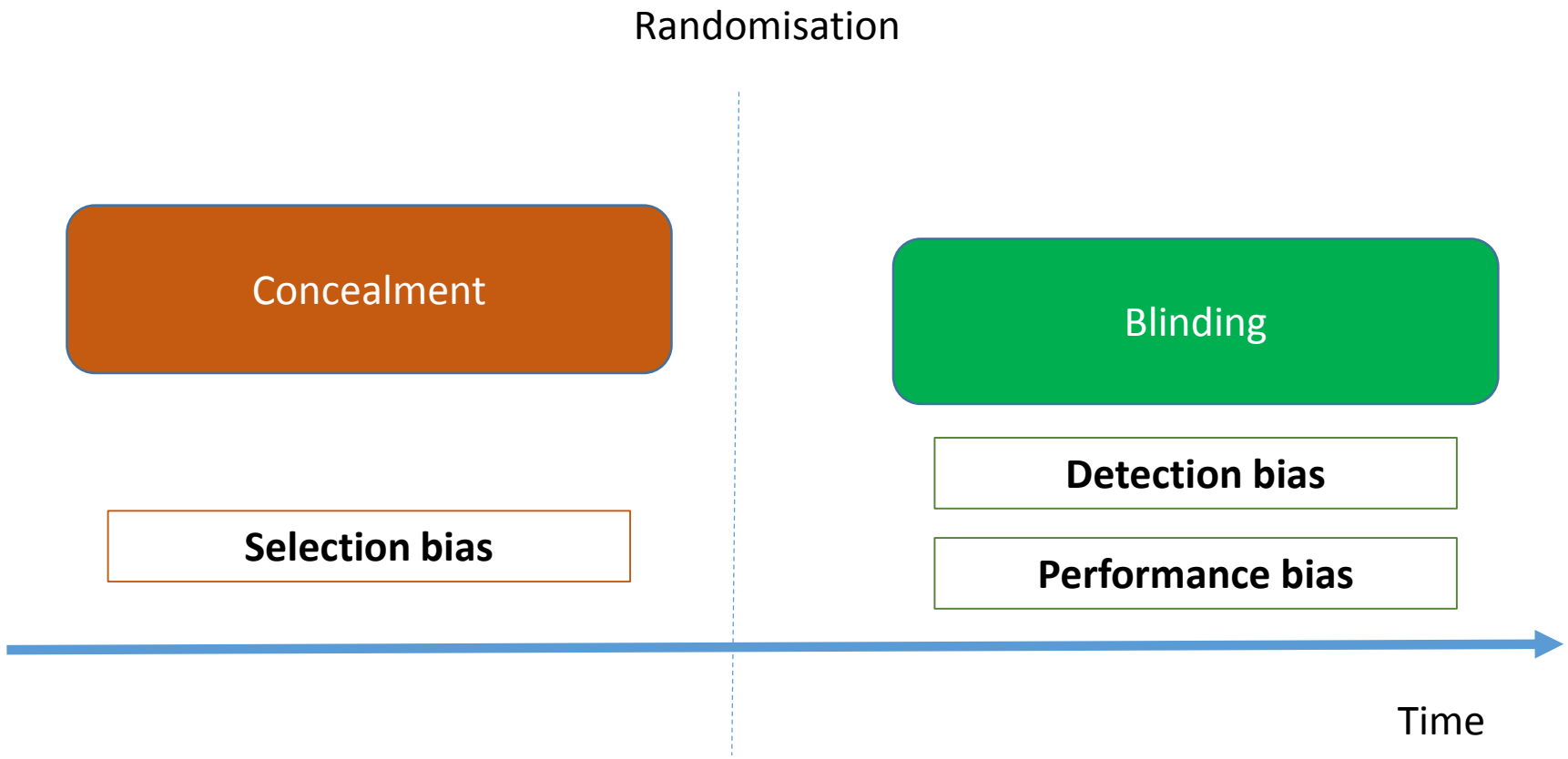
Tests of significance and estimates of adjusted relative risks and their confidence limits were derived with the method of Mantel and Haenszel[5] and its extension.[6] The data were stratified by age in 10-year groups and by sex where appropriate. All confidence limits are 95 per cent intervals. Most analyses were performed with the calculator programs developed by Rothman and Boice.[7]

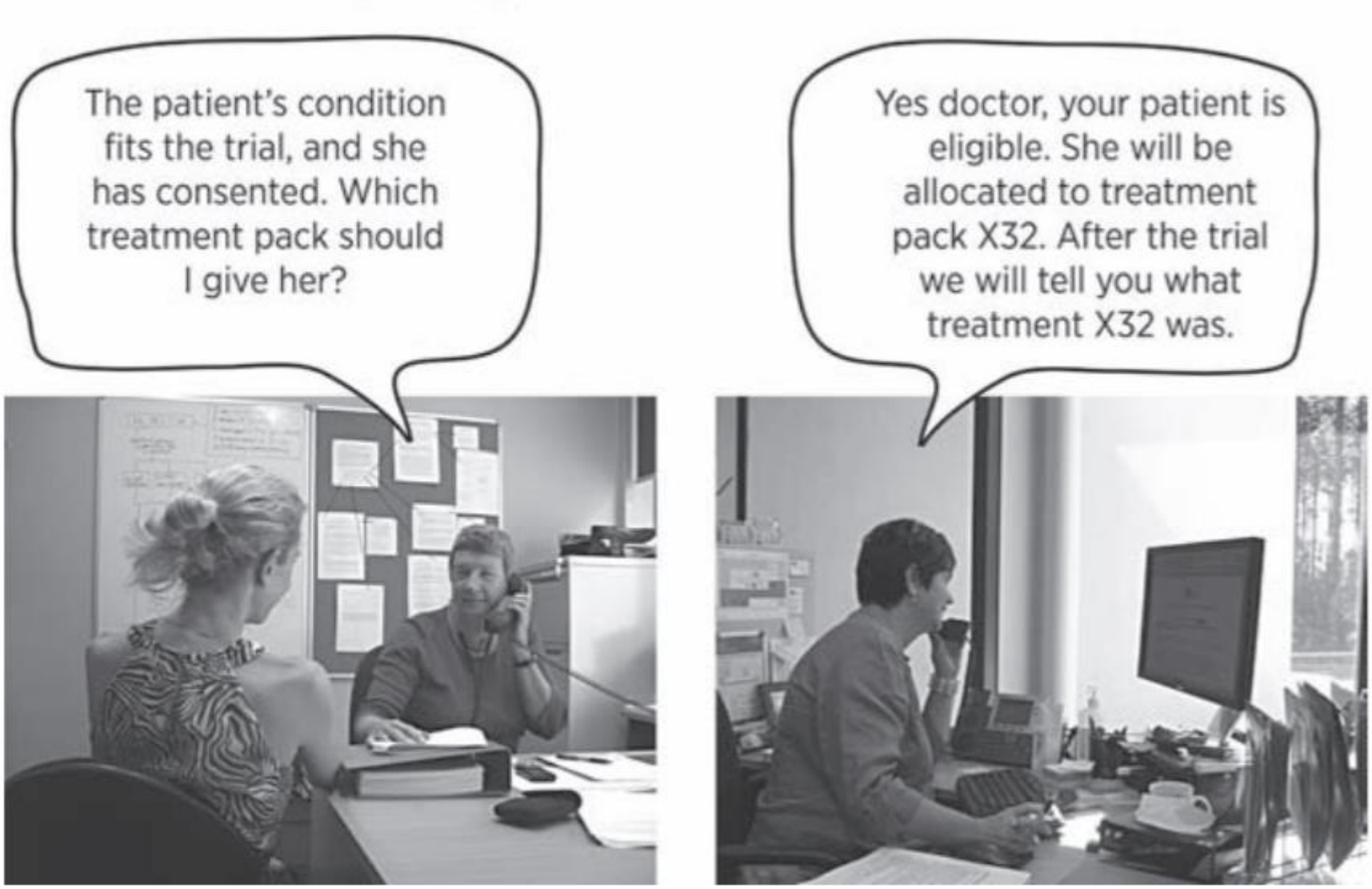
### RESULTS

#### Tobacco

There was no difference between cases and controls in the use of cigars or pipe tobacco. Among men, the

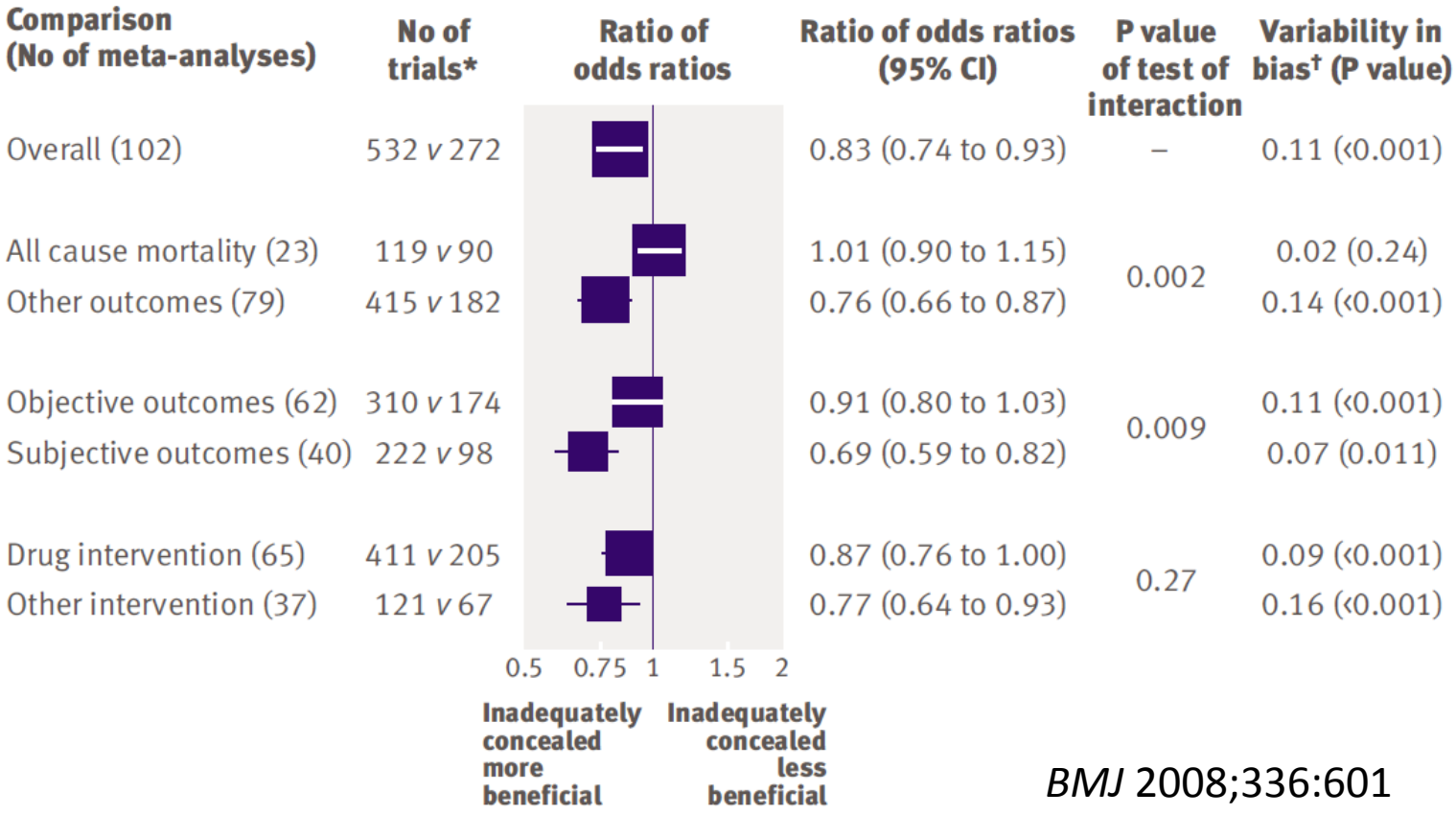
To assemble a control series, the interviewers also attempted to question all other patients who were under the care of the same physician in the same hospital at the time of an interview with a patient with pancreatic cancer.


Randomisation
Concealment
Blinding
Detection bias
Selection bias
Performance bias
Time




Source: http://en.testingtreatments.org/wp-content/uploads/sites/3/2015/12/6.3.3-Unbiased-prospective-allocationp73-74x.pdf

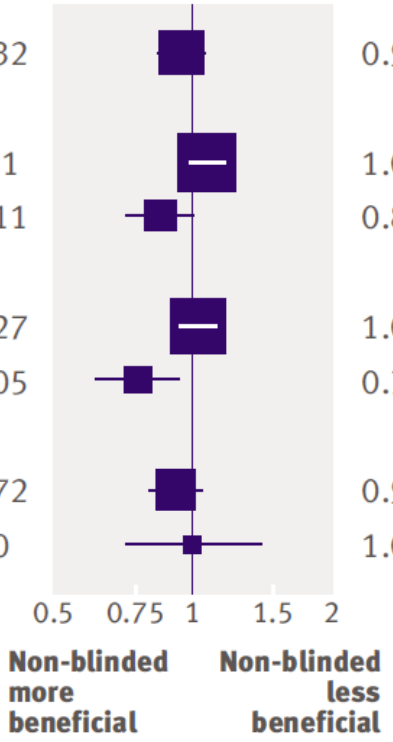
# The inadequate or unclear allocation concealment and biased estimates of intervention effects




*BMJ* 2008;336:601

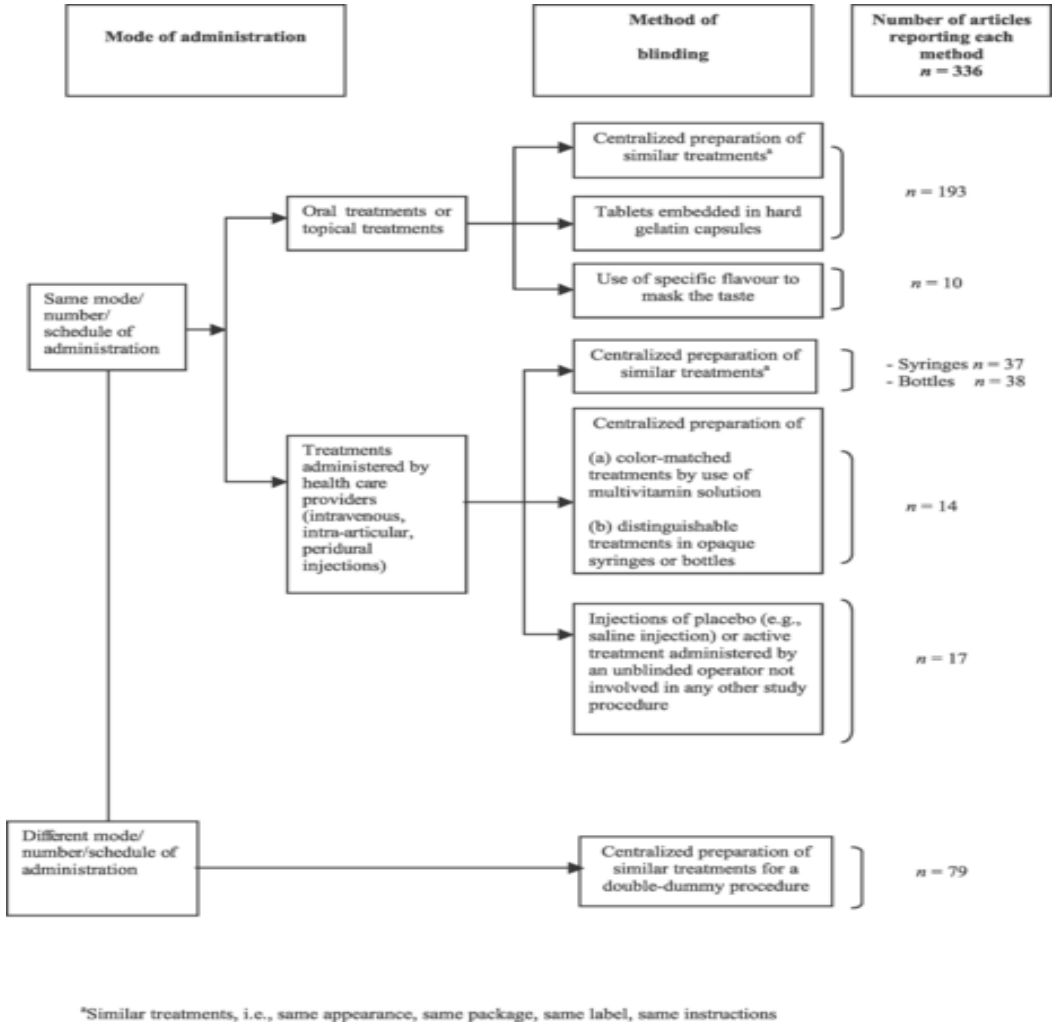
# The lack of blinding and biased intervention effects

| Comparison (No of meta-analyses) | No of trials* | Ratio of odds ratios | Ratio of odds ratios (95% CI) | P value of test of interaction | Variability in bias† (P value) |
|---|---|---|---|---|---|
| Overall (76) | 314 *v* 432 | | 0.93 (0.83 to 1.04) | – | 0.11 (‹0.001) |
| All cause mortality (18) | 79 *v* 121 | | 1.04 (0.95 to 1.14) | 0.011 | 0.01 (0.27) |
| Other outcomes (58) | 235 *v* 311 | | 0.83 (0.70 to 0.98) | | 0.18 (‹0.001) |
| Objective outcomes (44) | 210 *v* 227 | | 1.01 (0.92 to 1.10) | 0.01 | 0.08 (‹0.001) |
| Subjective outcomes (32) | 104 *v* 205 | | 0.75 (0.61 to 0.82) | | 0.14 (0.001) |
| Drug intervention (57) | 250 *v* 372 | | 0.92 (0.81 to 1.05) | 0.66 | 0.10 (‹0.001) |
| Other intervention (19) | 64 *v* 60 | | 1.00 (0.71 to 1.39) | | 0.22 (0.003) |



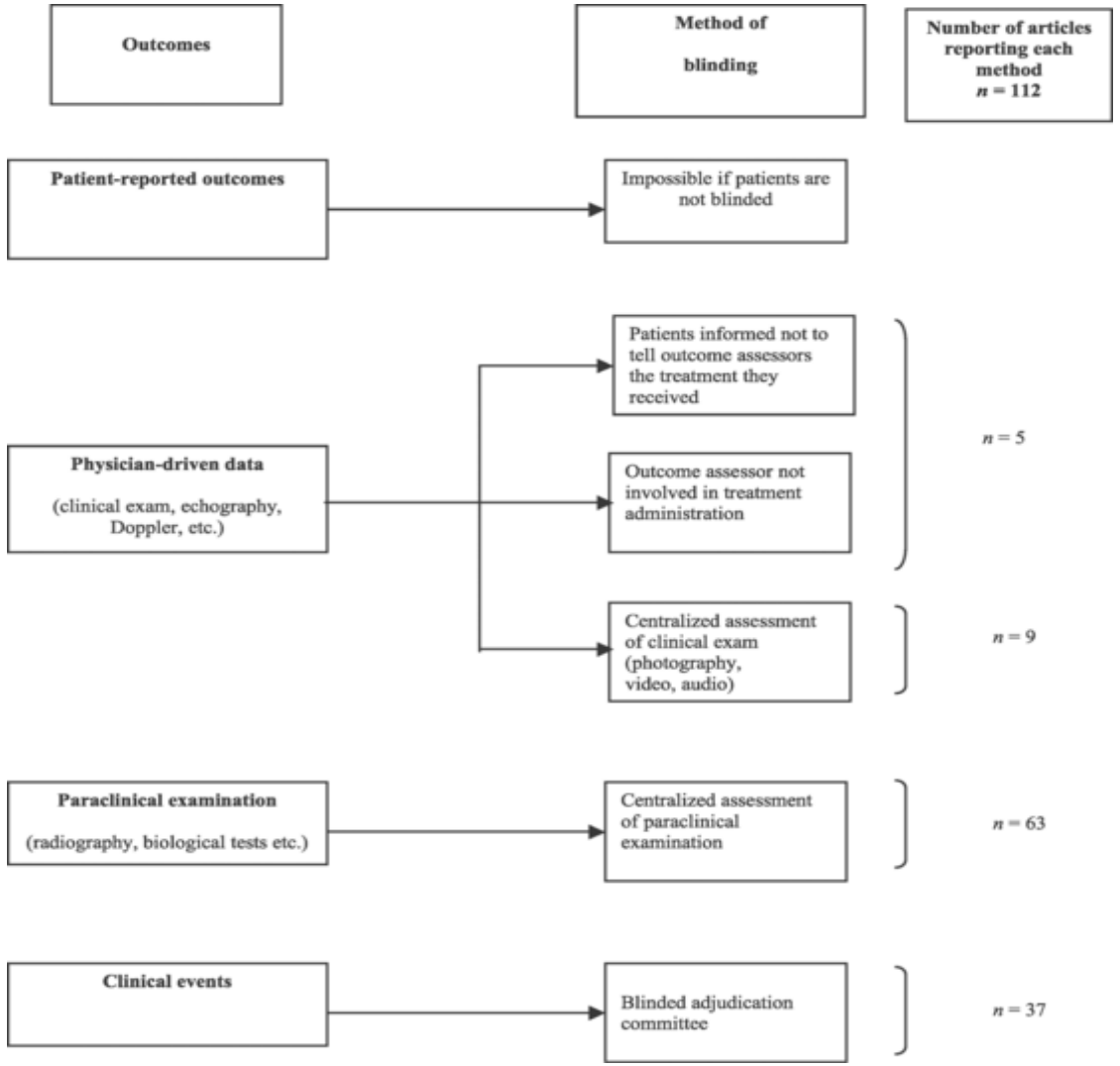

*BMJ* 2008;336:601

# Methods to Establish Blinding in RCTs




PLOS Medicine 3(10): e425. https://doi.org/10.1371/journal.pmed.0030425

# Methods of Blinded Outcome Assessment




PLOS Medicine 3(10): e425. https://doi.org/10.1371/journal.pmed.0030425

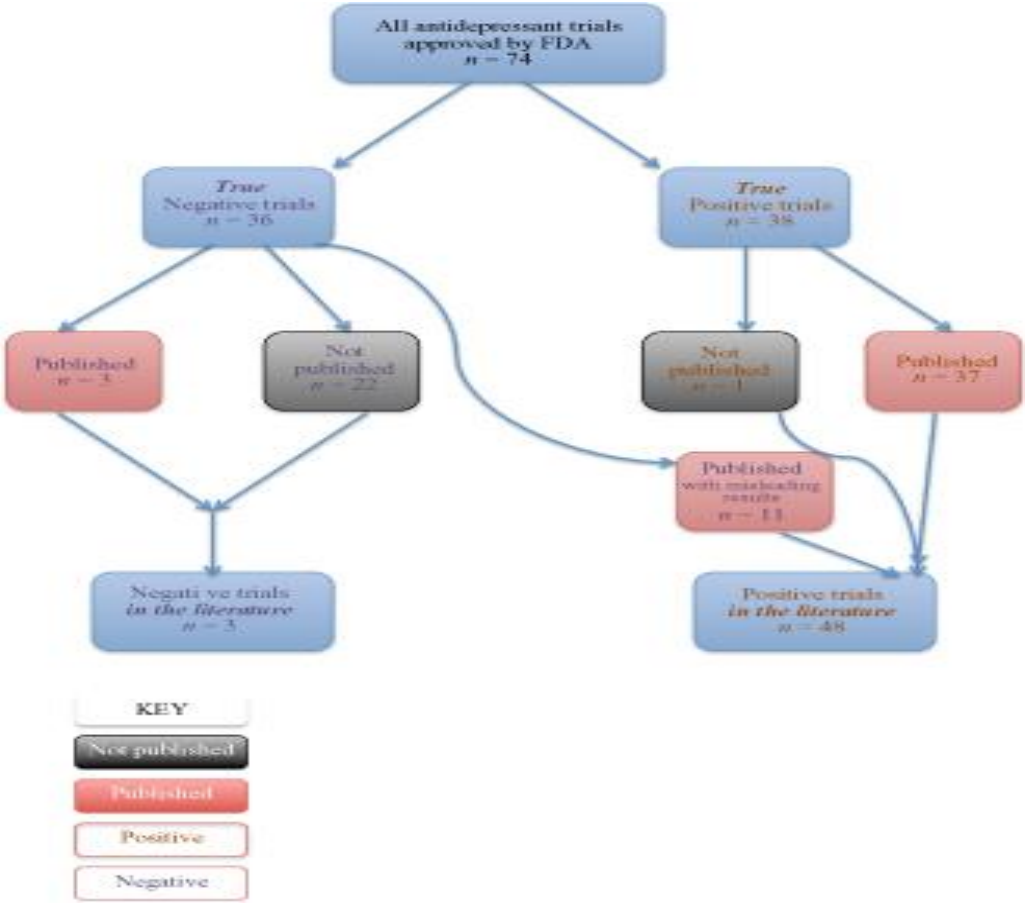
# Reporting bias

BMJ Open

## Feasibility study to examine discrepancy rates in prespecified and reported outcomes in articles submitted to *The BMJ*

**Results:** In the study period, *The BMJ* received 311 trial manuscripts, 21 of which were subsequently published by the journal. In trials published by *The BMJ*, 27% (89/333) of the prespecified outcomes in the protocol were not reported in the submitted paper and 11% (31/275) of reported outcomes were not prespecified. In the sample

# Publication Bias




**Journal of Evaluation in Clinical Practice**
Volume 20, Issue 6, pages 908-914, 12 MAY 2014 DOI: 10.1111/jep.12147

# Publication bias and Selective outcome reporting

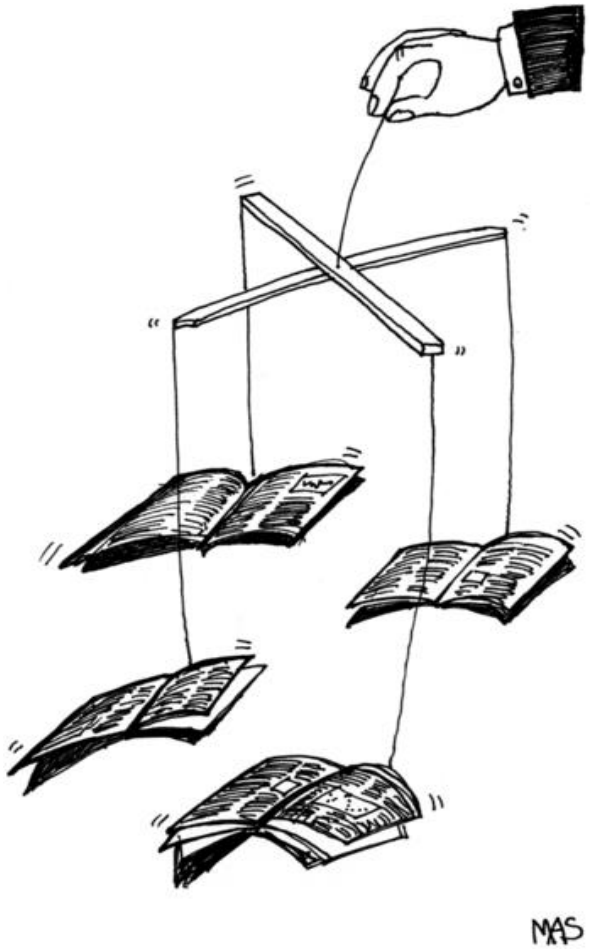
## Systematic Review of the Empirical Evidence of Study Publication Bias and Outcome Reporting Bias — An Updated Review

**Kerry Dwan*, Carrol Gamble, Paula R. Williamson, Jamie J. Kirkham, for the Reporting Bias Group¶**

Department of Biostatistics, University of Liverpool, Liverpool, England

***Methodology/Principal Findings:*** In this update, we review and summarise the evidence from cohort studies that have assessed study publication bias or outcome reporting bias in randomised controlled trials. Twenty studies were eligible of which four were newly identified in this update. Only two followed the cohort all the way through from protocol approval to information regarding publication of outcomes. Fifteen of the studies investigated study publication bias and five investigated outcome reporting bias. Three studies have found that statistically significant outcomes had a higher odds of being fully reported compared to non-significant outcomes (range of odds ratios: 2.2 to 4.7). In comparing trial publications to protocols, we found that 40–62% of studies had at least one primary outcome that was changed, introduced, or omitted. We decided not to undertake meta-analysis due to the differences between studies.

Medical Journals Are an Extension of the Marketing Arm of Pharmaceutical Companies.

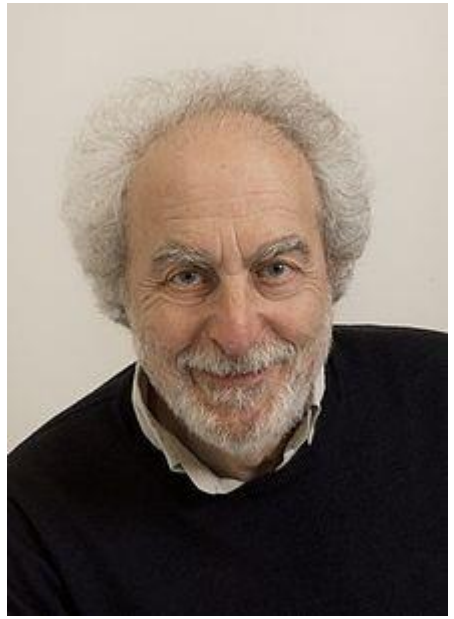



PLOS Medicine 2(5): e138. https://doi.org/10.1371/journal.pmed.0020138

**. (Illustration: Margaret Shear, Public Library of Science)**

BMJ

LONDON, SATURDAY 29 JANUARY 1994

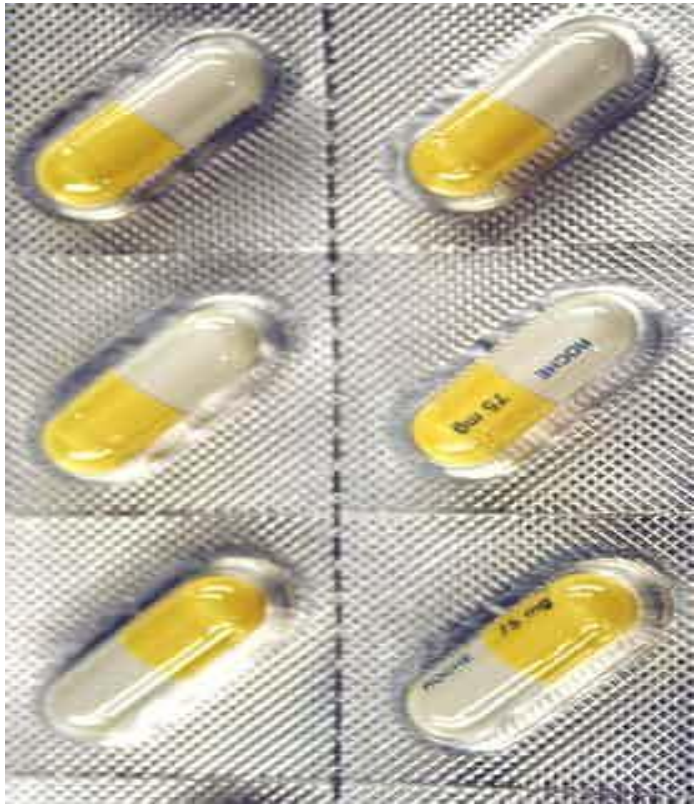


# The scandal of poor medical research

*We need less research, better research, and research done for the right reasons*

What, then, should we think about researchers who use th wrong techniques (either wilfully or in ignorance), use th right techniques wrongly, misinterpret their results, repo their results selectively, cite the literature selectively, an draw unjustified conclusions? We should be appalled. Ye numerous studies of the medical literature, in both gener and specialist journals, have shown that all of the abov phenomena are common.[1-7] This is surely a scandal.

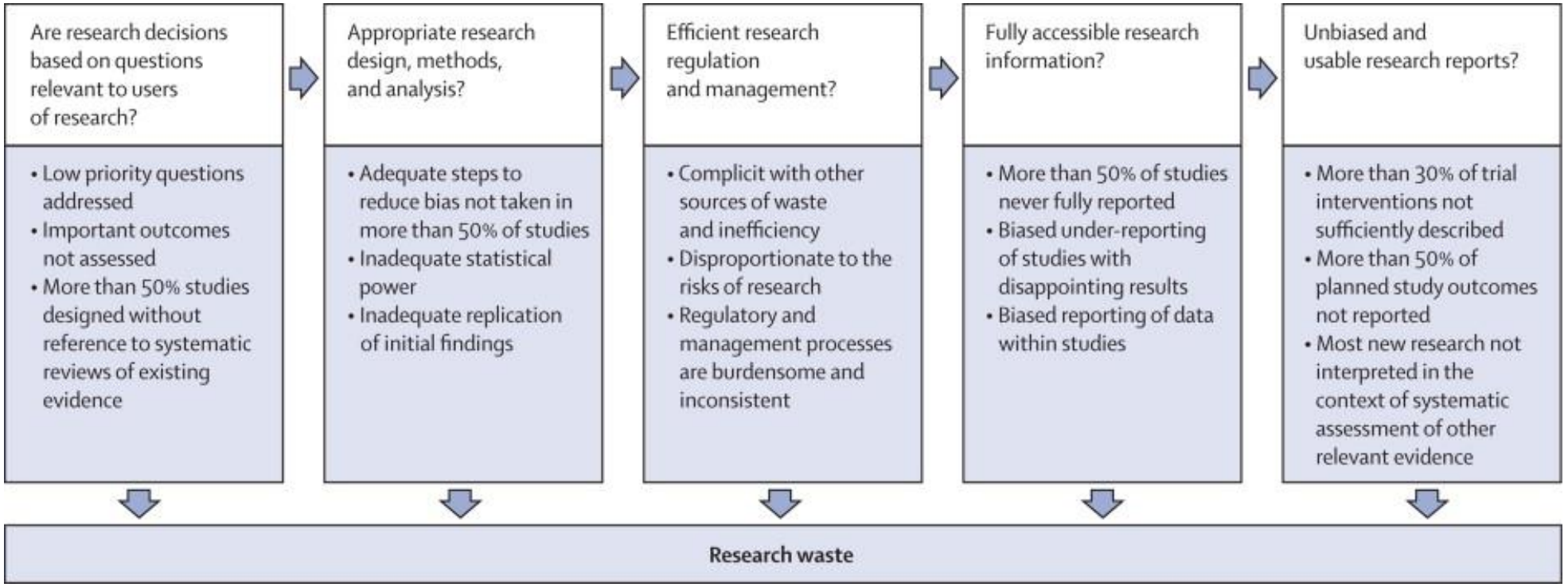
# Publication Bias and selective reporting: the Tamiflu Experience



Source:  Tamiflu capsules. Photograph: Per Lindgren/REX via The Guardian

Tom Jefferson

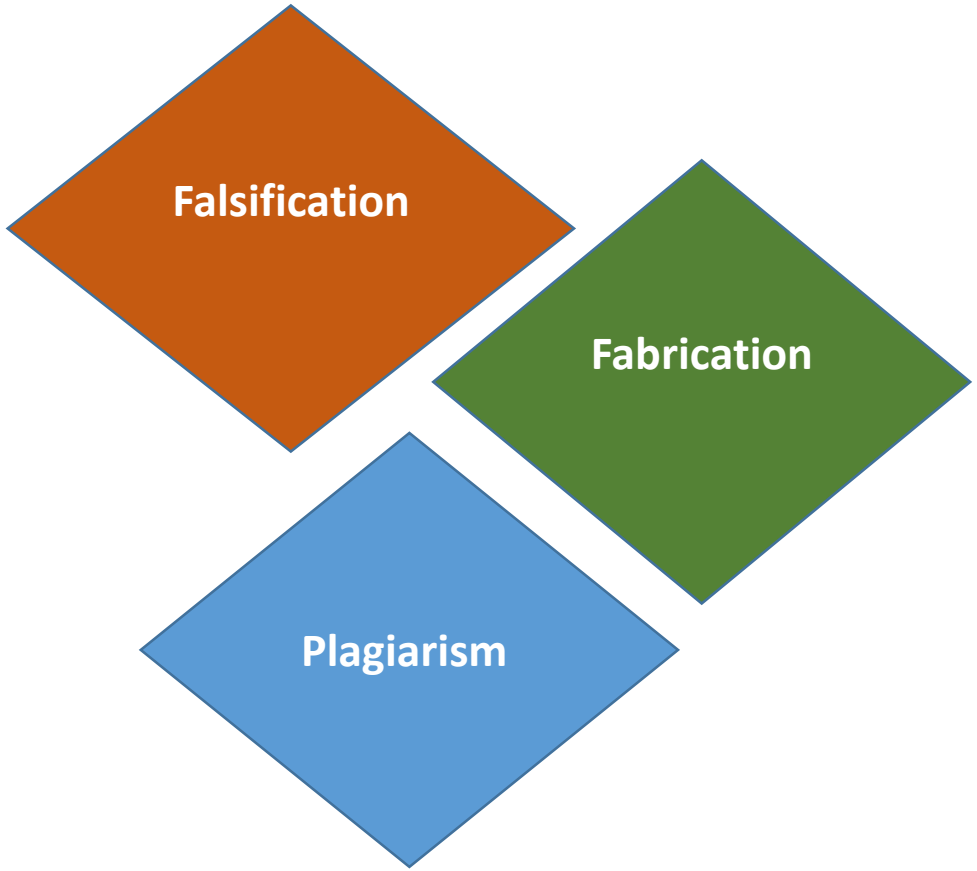
# An estimated $200 billion —85% of global spending on research — is routinely wasted on poorly designed and redundant studies.




Lancet 2009; 374: 86–89

# Research Misconduct

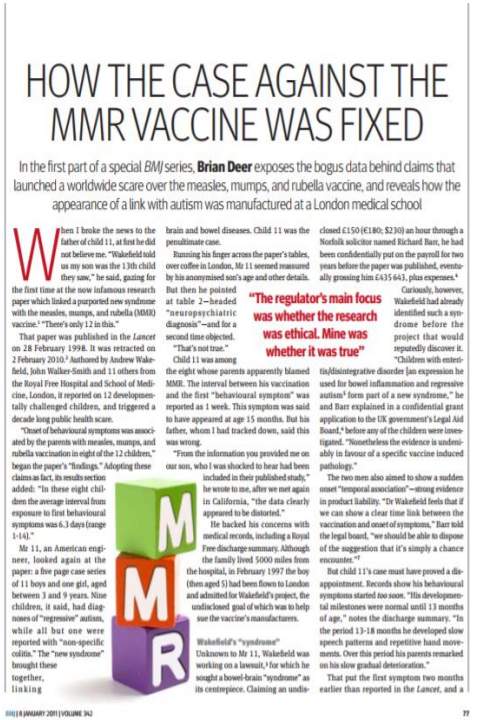
ORI THE OFFICE OF RESEARCH INTEGRITY®

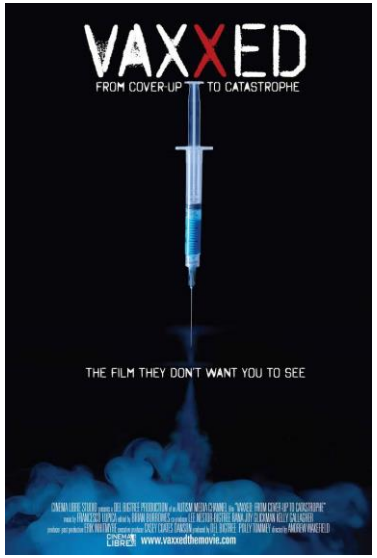



Source: https://ori.hhs.gov/definition-misconduct

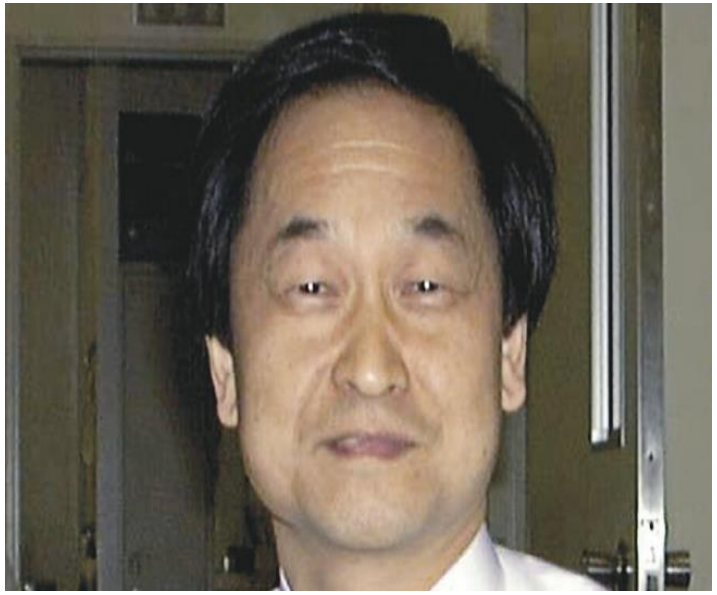
# Research Misconduct

Andrew Wakefield

# Research Misconduct



The Results of Investigation into Dr.Yoshitaka Fujii's papers

Toho University Faculty of Medicine announced on March 8, 2012 that 8 manuscripts of Dr.Yoshitaka Fujii had been retracted because of execution of these clinical studies without proper ethical approval. In addition, an article [Appendix 1] entitled "The analysis of 169 randomised controlled trials to test data integrity." was published on-line as a Special Article in Anaesthesia, the Journal of the Association of Anaesthetists of Great Britain and Ireland, on March 8, 2012. Three Editorials

B : Fabricated

Papers which have any discrepancy in numbers of subjects, medication, capability of the methohd :

171 papers (included 125 papers in RCT, double- blind mammer) [Appendix 5]

154 papers out of 193 papers [Appendix 3]

C : Others

Papers with no evidence to prove them fabricated or not fabricated :

38 papers

(No.1,2,3,4,5,6,7,8,13,15,17,18,23,24,25,26,32,33,34,44,45,46,68,70,71,75,92,93,94,96,97,113,122,123,139,141,152 [Appendix 5] )

# Research Misconduct

Joachim Boldt

KliLu
Wir leben Medizin.

BMJ

*BMJ* 2013;346:f1738 doi: 10.1136/bmj.f1738 (Published 19 March 2013)

## Boldt: the great pretender

The withdrawal of almost 90 fraudulent studies by a German anaesthetist is one of the biggest medical research scandals of recent time. **Jacqui Wise** examines what happened and what lessons have been learnt

Jacqui Wise *freelance journalist*

**Editors-in-Chief Statement Regarding**
**IRB Approval of Clinical Trials by Joachim Boldt**

February 4, 2011

To our readers:

Landesärztekammer Rheinland-Pfalz ("LÄK-RLP"), the State Medical Association of Rheinland-Pfalz, Germany, today announced the first results of a review of the papers published by Prof Joachim Boldt. The ethics committee of LÄK-RLP serves as the Institutional Review Board (IRB) for clinical research at Klinikum Ludwigshafen, where Professor Boldt's recent research was conducted.

Based on today's announcement, LÄK-RLP has reviewed 74 scientific articles describing clinical trials subject to the requirements of the German Medicinal Act. This includes the article by Professor Boldt recently retracted by *Anesthesia & Analgesia* and an article submitted by Professor Boldt to *Anaesthesia* but not published. By law these studies required IRB approval.

On behalf of our respective journals,

Lars S. Rasmussen
Editor-in-Chief, ***Acta Anaesthesiologica Scandinavica***

Steven M. Yentis
Editor-in-Chief, ***Anaesthesia***

Jürgen Schüttler
Editor-in-Chief, ***Anästhesiologie und Intensivmedizin***

Hugo Van Aken
On behalf of the Editorial Board, ***Anästhesiolgie Intensivmedizin Notfallmedizin Schmerztherapie***

Steven L. Shafer
Editor-in-Chief, ***Anesthesia & Analgesia***

James C. Eisenach
Editor-in-Chief, ***Anesthesiology***

Charles S. Reilly
Editor-in-Chief, ***British Journal of Anaesthesia***

Donald R. Miller
Editor-in-Chief, ***Canadian Journal of Anesthesia/Journal canadien d'anesthésie***

Bernd Zwissler
On behalf of the Editorial Board, ***Der Anästhesist***

Martin R. Tramèr
Editor-in-Chief, ***European Journal of Anaesthesiology***

Massimo Antonelli
Editor-in-Chief, ***Intensive Care Medicine***

# Research Misconduct

Anil Potti

Duke UNIVERSITY

THE LANCET Oncology

The NEW ENGLAND JOURNAL of MEDICINE

CHEST JOURNAL

OFFICIAL PUBLICATION OF THE AMERICAN COLLEGE OF CHEST PHYSICIANS

nature medicine

JOURNAL OF CLINICAL ONCOLOGY

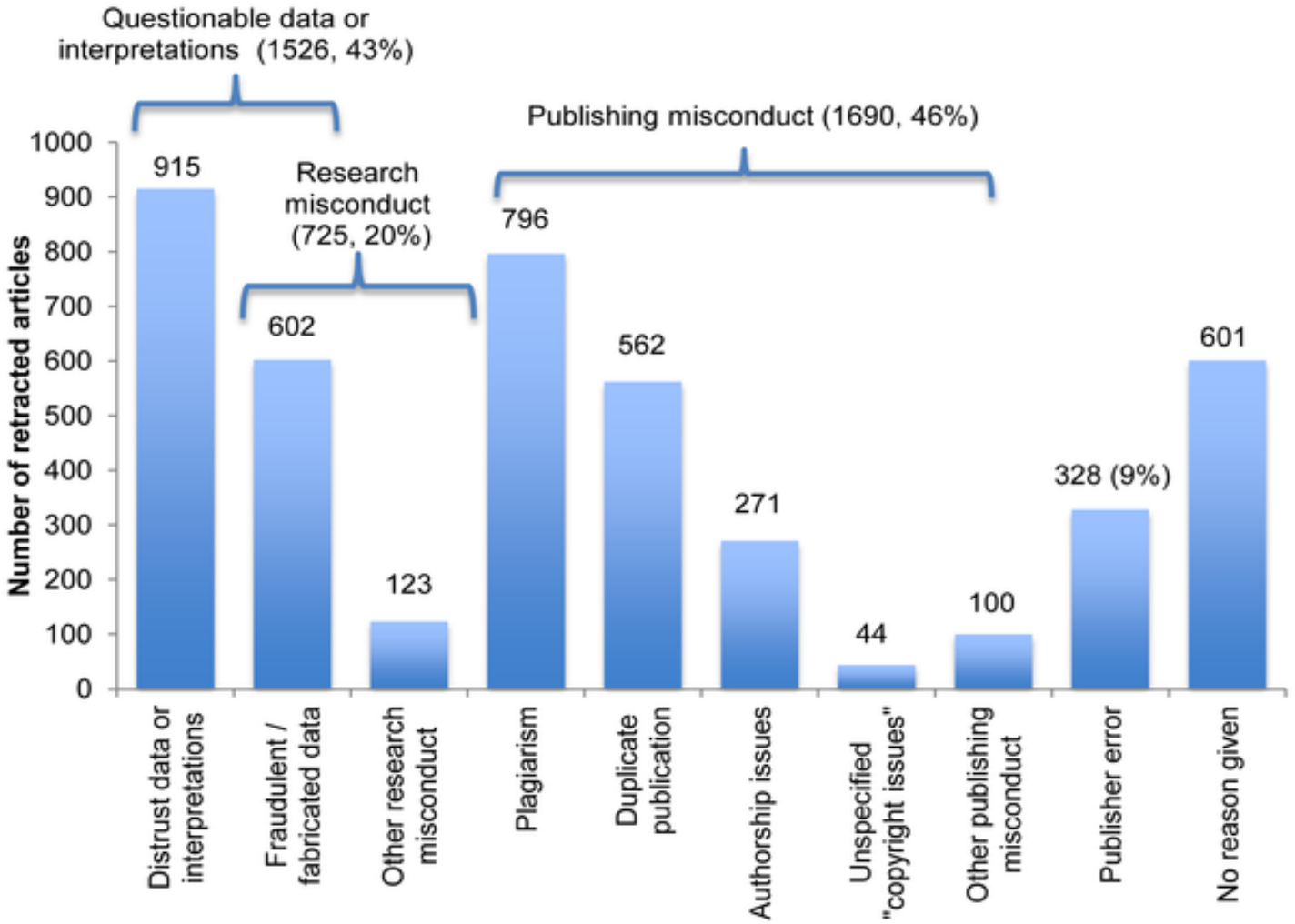
PLOS ONE

TENTH ANNIVERSARY

JAMA®

The Journal of the American Medical Association

**Justifications for retraction stated in the notices consulted, which accounted for 4,232 retracted articles.**




PLOS ONE 7(10): e44118. https://doi.org/10.1371/journal.pone.0044118
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0044118

# Research Misconduct


Grigori Perelman

ASIAN J. MATH.
Vol. 10, No. 2, pp. 165–492, June 2006


001

# A COMPLETE PROOF OF THE POINCARÉ AND GEOMETRIZATION CONJECTURES – APPLICATION OF THE HAMILTON-PERELMAN THEORY OF THE RICCI FLOW*

HUAI-DONG CAO† AND XI-PING ZHU‡

ASIAN J. MATH.
Vol. 10, No. 4, pp. 663–664, December 2006


001

# ERRATUM TO "A COMPLETE PROOF OF THE POINCARÉ AND GEOMETRIZATION CONJECTURES – APPLICATION OF THE HAMILTON-PERELMAN THEORY OF THE RICCI FLOW", ASIAN J. MATH., VOL. 10, NO. 2, 165–492, 2006*

HUAI-DONG CAO† AND XI-PING ZHU‡

We would like to thank Bruce Kleiner and John Lott for bringing to our attention the fact that the argument concerning Claim 2 in the proof of Perelman's singularity structure theorem (i.e., the Step 2 in the proof of Theorem 7.1.1 in our paper, p. 400–402) essentially appeared in the initial version of their notes on Perelman's first paper posted on the website

`http://www.math.lsa.umich.edu/research/ricciflow/perelman.html`

# Hamilton-Perelman's Proof of the Poincaré Conjecture and the Geometrization Conjecture*

Huai-Dong Cao and Xi-Ping Zhu

ABSTRACT. In this paper, we provide an essentially self-contained and detailed account of the fundamental works of Hamilton and the recent breakthrough of Perelman on the Ricci flow and their application to the geometrization of three-manifolds. In particular, we give a detailed exposition of a complete proof of the Poincaré conjecture due to Hamilton and Perelman.

*This is a revised version of the article by the same authors that originally appeared in Asian J. Math., **10**(**2**) (2006), 165–492.

# Self-regulation?

**AMA Journal of Ethics®**
**February 2017, Volume 19, Number 2: 199-206**

**MEDICINE AND SOCIETY**

**The Case of Dr. Oz: Ethics, Evidence, and Does Professional Self-Regulation Work?**

Jon C. Tilburt, MD, MPH, Megan Allyse, PhD, and Frederic W. Hafferty, PhD

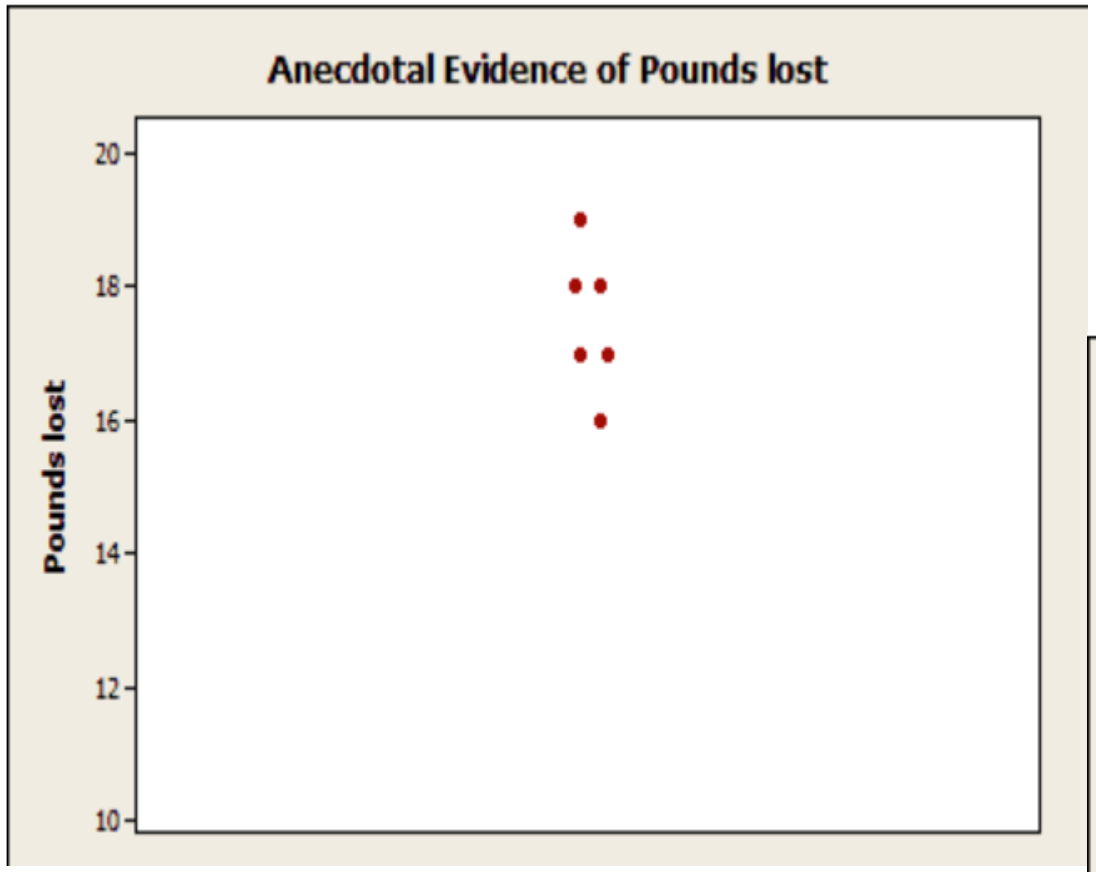
*Editor's Note: This article was published on February 1, 2017, and updated on February 13, 2017.*

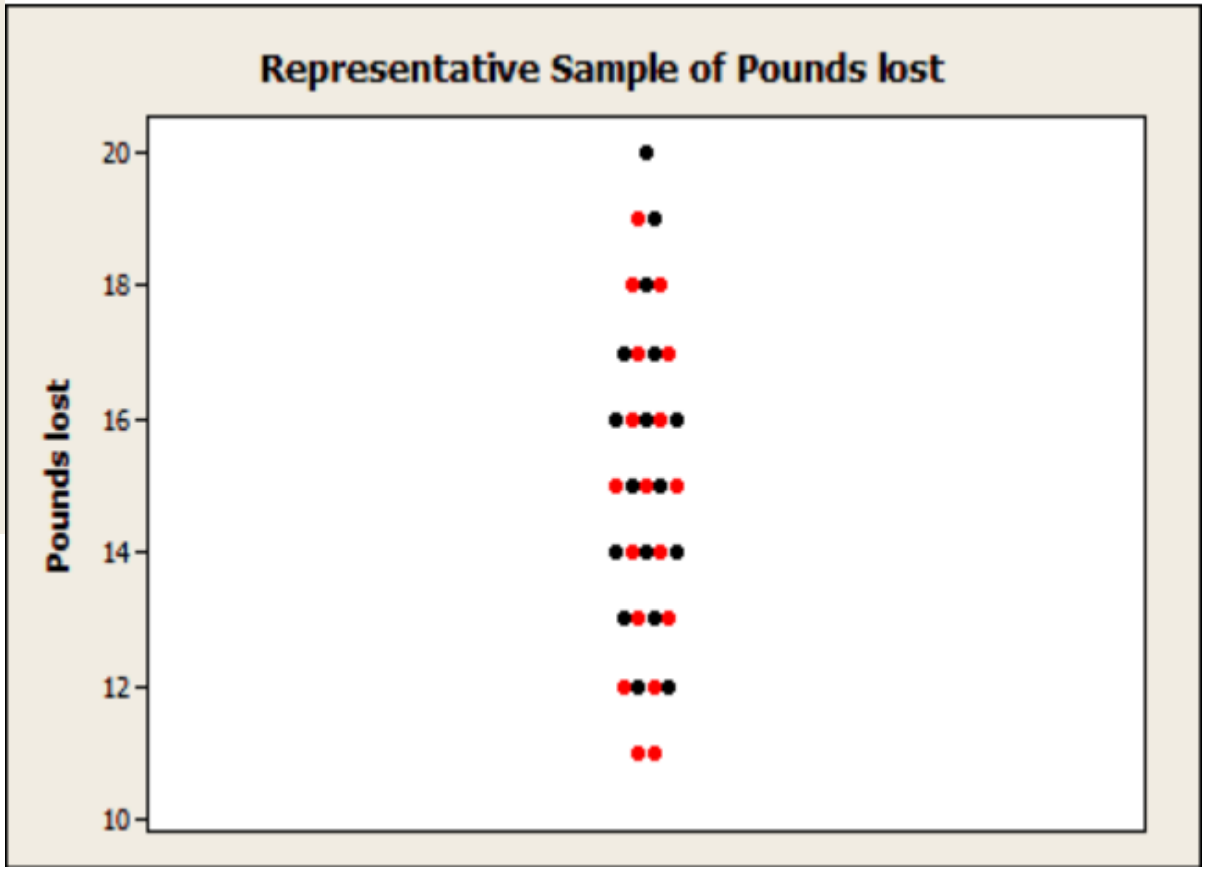
**Abstract**

Dr. Mehmet Oz is widely known not just as a successful media personality donning the title "America's Doctor®," but, we suggest, also as a physician visibly out of step with his profession. A recent, unsuccessful attempt to censure Dr. Oz raises the issue of whether the medical profession can effectively self-regulate at all. It also raises concern that the medical profession's self-regulation might be selectively activated, perhaps only when the subject of professional censure has achieved a level of public visibility. We argue here that the medical profession must look at itself with a healthy dose of self-doubt about whether it has sufficient knowledge of or handle on the less visible Dr. "Ozes" quietly operating under the profession's presumptive endorsement.

**Introduction**

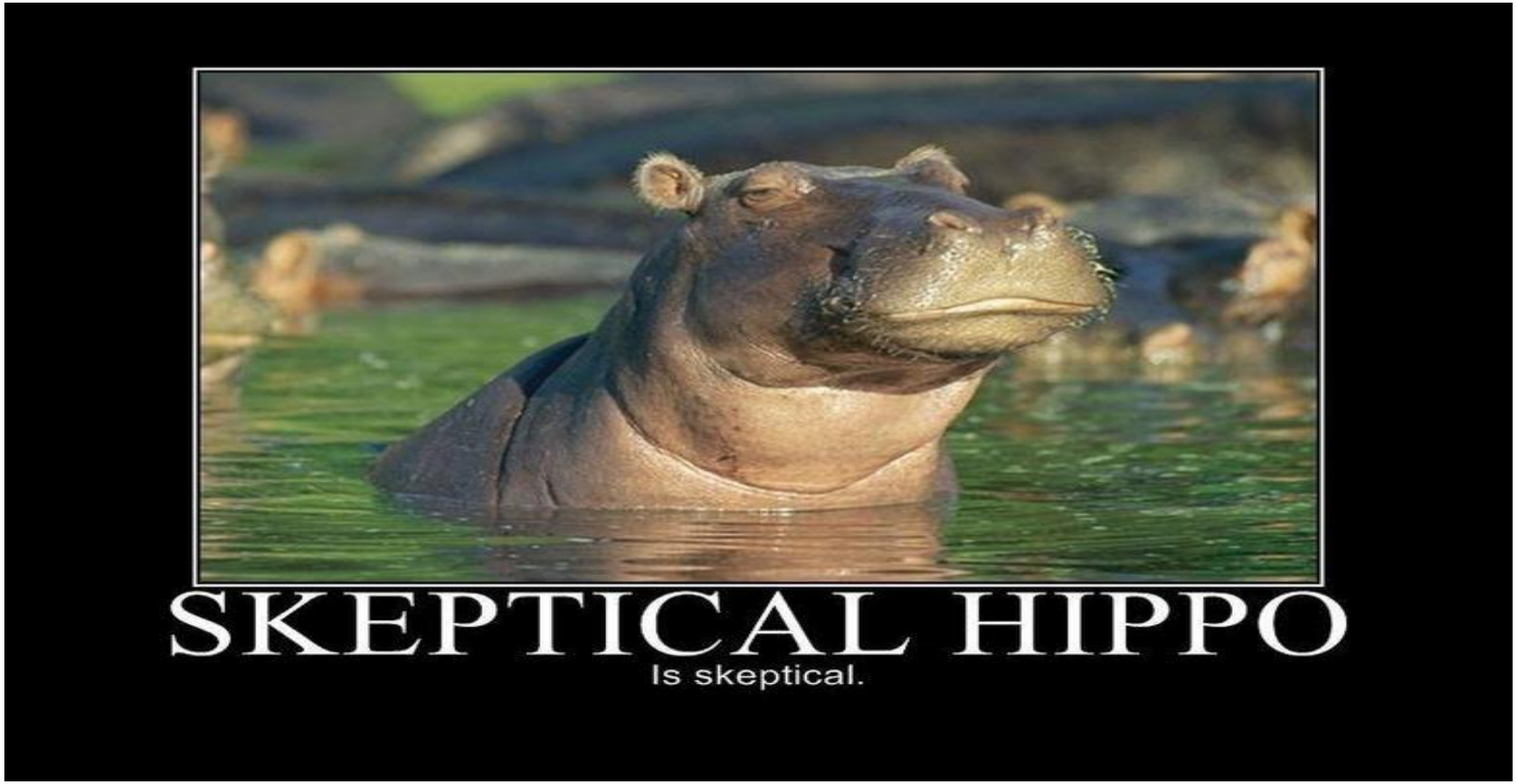
Dr. Mehmet Oz's surgical credentials including expertise in minimally invasive, heart transplant, and heart valve surgery are impeccable [1]. But when Dr. Oz walks onto the stage of *The Dr. Oz Show*, he's not just a well-trained heart surgeon, he becomes




Source: http://blog.minitab.com/blog/adventures-in-statistics-2/why-anecdotal-evidence-is-unreliable

# البحث العلمي المنشور بين الجيد والرديء



# Voting

www.Menti.com

Code: 349874

# شكرا


**سيناء عبد المحسن العقيل**

**استاذ مشارك بقسم الصيدلة الاكلينكية**

**كلية الصيدلة**

Salageel@ksu.edu.sa

@alaqeels