

# **Faculty of 1000 Medicine**

*An authoritative and trustworthy  
guide to the articles that matter?*

**Pritpal S Tamber**

Managing Director, Medicine Reports Ltd

CrossRef 2007 Annual Member Meeting

Thursday, November 1st, 2007



# Overview

What is the F1000 idea?

- Article selection
- Changes clinical practice
- Multiple perspectives of the same article
- The F1000 Factor

The problems it is a solution to

Application to clinical medicine

Possible futures



GLOBAL LEADERS. EXPERT KNOWLEDGE.

# The F1000 idea

Trusted experts

Select, rate and evaluate 'good' articles

Good = articles that add value to their field

Medicine: 18 specialties; 202 sub specialties

Each article indexed to all relevant sub specialties

*Faculty of 1000 Medicine is a continuously updated and authoritative guide to the articles that matter.*



# The world's most distinguished faculty of over 2400 medical leaders save you time by interpreting today's key developments in healthcare



## Global faculty of experts >

Leaders in clinical practice and research select the most influential articles



## Each article interpreted and cross-indexed >

Learn what experts across specialties think individual articles contribute to the evidence



## Unique ranking system >

Faculty Members rate the significance of selected articles to help focus your reading



## Saving you time >

Customize the service and create email alerts that help you stay on top of the latest articles quickly and easily

See how it all works on the F1000 Medicine tour

**News**

**All the latest F1000M news**

Sign up for our monthly update. Enter your email address



**Free Editors' Choice**

**Calciphylaxis: natural history, risk factor analysis, and outcome.**

Weenig RH, et al.  
J Am Acad Dermatol  
2007 Apr

## New articles this week

- 4** articles that change clinical practice >
- 8** existing articles with new evaluations >
- 3** articles with an F1000 Factor above 6.0 >
- 53** articles across all of medicine >

## International Advisory Board

- Steven Hyman**  
Provost, Harvard University, USA
- Sir Keith Peters**  
Emeritus Regius Professor of Physic, Cambridge University, UK
- Alan Schechter**

# “Changes clinical practice”

Sticky wicket?

Practice is region-, country-, institution-dependent

Guidelines direct practice

But guidelines have a ‘half-life’

*“In patients with infective endocarditis treated with antibiotics, cardioembolic stroke should no longer result in delayed surgery, but rather be accepted as failure of conservative therapy and indication for urgent surgical valve treatment.”<sup>1</sup>*

1. Wolfgang Schoels: Faculty of 1000 Medicine, 31 Oct 2007

[www.f1000medicine.com/article/id/1091545/evaluation](http://www.f1000medicine.com/article/id/1091545/evaluation)



F1000 Factor 3.0

EndNote

Download citation

Send page by email

Evaluate article

Add dissent

## Neurological outcome of septic cardioembolic stroke after infective endocarditis.

Ruttmann E, Willeit J, Ulmer H, Chevtschik O, Höfer D, Poewe W, Laufer G, Müller LC

Stroke 2006 Aug 37(8):2094-9 [[abstract on PubMed](#)] [[citations on Google Scholar](#)] [[related articles](#)] [[full text](#)] [[order article](#)]Selected by | Wolfgang Schoels **NEW**

Evaluated 31 Oct 2007

[Browse relevant Sections](#)[View additional info](#)

### Faculty Comments

#### Faculty Member

#### Wolfgang Schoels

Herzzentrum Duisburg,

Germany

CARDIOVASCULAR  
DISORDERS

New Finding

#### Comments



**Changes Clinical Practice:** *In patients with infective endocarditis treated with antibiotics, cardioembolic stroke should no longer result in delayed surgery, but rather be accepted as failure of conservative therapy and indication for urgent surgical valve treatment.*

**Based on the article's findings, acute or subacute stroke associated with infective endocarditis is no reason to postpone surgical valve treatment.** Obviously, cardiopulmonary bypass in this setting does not increase the risk for secondary cerebral hemorrhage. This is in line with my own experience, considering any type of embolic complication (that is, even stroke) in patients with infective endocarditis as an argument for rather than against urgent cardiac surgery. The article not only confirms the clinical impression that the risk of immediate cardiac surgery is acceptable but also demonstrates that the chances of complete neurological recovery are quite high. The authors present the first large consecutive series of patients with infective endocarditis complicated by cardioembolic stroke that received early cardiac valve surgery involving cardiopulmonary bypass. This early surgical strategy is in contrast with "eminence-based" conventional wisdom that loss of autoregulation in the penumbra zone prohibits cardiopulmonary bypass. Although this is only an observational study, the favourable results in patients with cardioembolic stroke help to clarify the issue of early versus delayed cardiac surgery and provide a solid basis for the choice of a therapeutic strategy. This is a single-center, observational study; therefore, one could not judge the

# The world's most distinguished faculty of over 2400 medical leaders save you time by interpreting today's key developments in healthcare



## Global faculty of experts >

Leaders in clinical practice and research select the most influential articles



## Each article interpreted and cross-indexed >

Learn what experts across specialties think individual articles contribute to the evidence



## Unique ranking system >

Faculty Members rate the significance of selected articles to help focus your reading



## Saving you time >

Customize the service and create email alerts that help you stay on top of the latest articles quickly and easily

See how it all works on the F1000 Medicine tour

**News**

**All the latest F1000M news**

Sign up for our monthly update. Enter your email address



**Free Editors' Choice**

**Calciphylaxis: natural history, risk factor analysis, and outcome.**

Weenig RH, et al.  
J Am Acad Dermatol  
2007 Apr

## New articles this week

- 4** articles that change clinical practice >
- 8** existing articles with new evaluations >
- 3** articles with an F1000 Factor above 6.0 >
- 53** articles across all of medicine >

## International Advisory Board

- Steven Hyman**  
Provost, Harvard University, USA
- Sir Keith Peters**  
Emeritus Regius Professor of Physic, Cambridge University, UK
- Alan Schechter**

# “Existing articles with new evaluations”

Different Faculty Member, same article

Different perspective:

- View from within the same subspecialty
- View from within the same specialty
- View from an adjacent specialty

A key article in stroke warrants a vascular, cardiological, surgical and neurological opinion

Cross-indexing



GLOBAL LEADERS. EXPERT KNOWLEDGE.



F1000 Factor 3.4

EndNote

Download citation

Send page by email

Evaluate article

Add dissent

## Long-term exposure to air pollution and incidence of cardiovascular events in women.

Miller KA, Siscovick DS, Sheppard L, Shepherd K, Sullivan JH, Anderson GL, Kaufman JD

*N Engl J Med* 2007 Feb 1 356(5):447-58 [[abstract on PubMed](#)] [[citations on Google Scholar](#)] [[related articles](#)] [[full text](#)]

[[order article](#)]

**Selected by** | Ulrike Luderer / Ellen Eisen / Viola Vaccarino / Wilbert Aronow

First evaluation 11 May 2007 | Latest evaluation 22 Oct 2007

Browse relevant Sections

CARDIOVASCULAR DISORDERS > Coronary artery disease | Geriatric cardiology | Vascular diseases (non-coronary)

NEUROLOGICAL DISORDERS > Cerebrovascular disease

PUBLIC HEALTH & EPIDEMIOLOGY > Environmental health | Epidemiology | Occupational & industrial medicine

WOMEN'S HEALTH > Cardiovascular diseases in women | Environment & women's health | Menopause & post-reproductive women's health

▶ [View additional info](#)

### Faculty Comments

#### Faculty Member

#### Ulrike Luderer

University of California,  
United States of America  
PUBLIC HEALTH &  
EPIDEMIOLOGY

Confirmation

#### Comments

**This study found that long-term exposure to fine particulate air pollution (PM2.5) was associated with increased incidence of cardiovascular disease events and increased risk of mortality from cardiovascular disease in women enrolled in the Women's Health Initiative (WHI), a prospective cohort study.** Analyses using Cox proportional hazards regression showed an increased risk of death from definite coronary heart disease (hazard ratio 2.21, 95% CI 1.17-4.16) and from cerebrovascular disease (1.83, 95% CI 1.11-3.00) for every 10 microgram per cubic meter increase in PM2.5. Hazard ratios for first myocardial infarction, coronary artery revascularization, and cerebrovascular disease event were also significantly increased with increasing exposure to PM2.5. The authors studied 65,893 post-menopausal women without a history of cardiovascular disease at baseline and recorded 349,643 woman-years of follow-up. Annual average PM2.5 concentrations for each subject were obtained from the Environmental Protection Agency's Aerometric Information Retrieval System using the nearest monitor to each woman's residence based on ZIP code centroid. The first cardiovascular event or death from coronary heart disease or cerebrovascular disease were identified from annual questionnaires of the subject or proxy

# The F1000 Factor

Multiple evaluations weighted positively

Not an average

Mean of highest two ratings + (sum of all ratings/30)

Example: Ratings of 9, 9 and 6:

- Average is 8 ( $[9+9+6]/3$ )
- F1000 Factor is 9.8 ( $[9+9]/2 + [9+9+6]/30$ )

# The problem it is a solution to

“‘[T]he signal to noise” ratio of journals is too low...’

F1000Biology: “The papers you need to read”

“‘[T]he signal to noise” ratio of journals is too low for them to be useful in daily practice’<sup>2</sup>

Few clinical doctors have the time to read

Few clinical doctors *need to* have the time to read

Besides, few clinical doctors have been trained in *how to* read

2. Smith R. What clinical information do doctors need? *BMJ* 1996;313:1062-1068

# Application to clinical medicine (utility<sup>3,4</sup>)

Relevance x Validity (x Interactivity)

---

Work to access

3. Shaughnessy AF, Slawson DC, Bennett JH. Becoming an information master: a guidebook to the medical information jungle. *J Fam Pract* 1994; 39:489-99
4. Smith R. What and who are medical journals for. In *The Trouble with Medical Journals*. London. Royal Society of Medicine Press Ltd. 2006. 33-44.

# Limits to EBM?

“The clinicians complained that reading the full chapter of *Clinical Evidence* was tedious ...”<sup>5</sup>

“And yet, the very success of the movement toward formal scientific methods that has matured into the modern commitment to evidence-based medicine now creates a wall that excludes too much of the knowledge and practice that can be harvested from experience, itself, reflected upon.”<sup>6</sup>

“Many studies have shown that when doctors have questions ... they mostly go to colleagues, even though they may say that they use journals.”<sup>4</sup>

5. Moja L, Moschetti I, Liberati A, Manfrini R, Deligant C, et al. (2007) Using *Clinical Evidence* in a National Continuing Medical Education Program in Italy. *PLoS Med* 4(5): e113

6. Berwick DM. Broadening the view of evidence-based medicine. *Quality and Safety in Health Care* 2005;14:315-316



**FACULTY OF 1000  
MEDICINE**

GLOBAL LEADERS. EXPERT KNOWLEDGE.

# What I covered

## The F1000 idea

- Article selection
- Changes clinical practice
- Multiple perspectives of the same article
- The F1000 Factor

The problems it is a solution to  
Application to clinical medicine

**Possible futures**

# Possible futures

Get more 'interactivity' from within the Faculty (more evaluations, dissents, and *comments*)

Get responses from authors

An annual scoring of journals?

User comments and ratings?

More systematic searches of journals?

Thanks for listening – any questions?