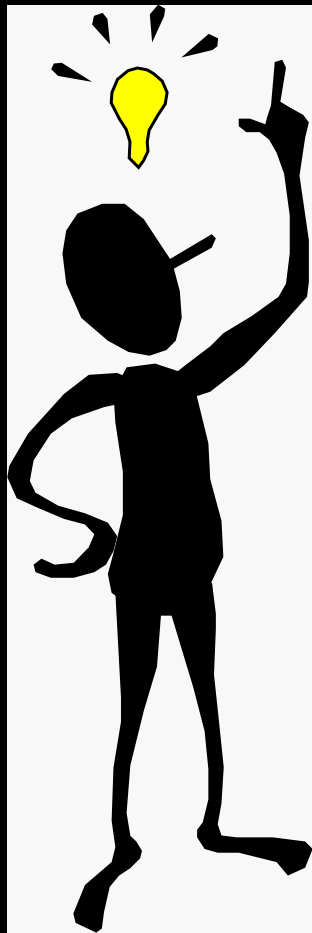


Evidence Based Dentistry

# Introduction - Why EBD?

Asbjørn Jokstad  
University of Oslo, Norway

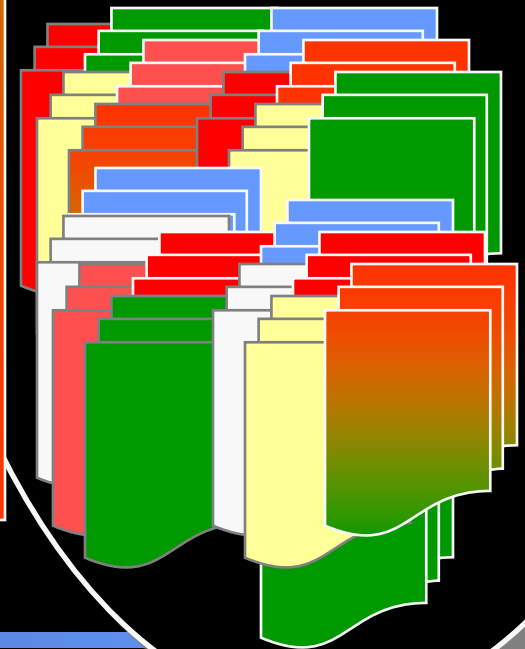
# The graduate



**Advertising**  
- producers  
- colleagues

**Teachers**  
“Curriculum”

**Publications  
in  
dentistry**





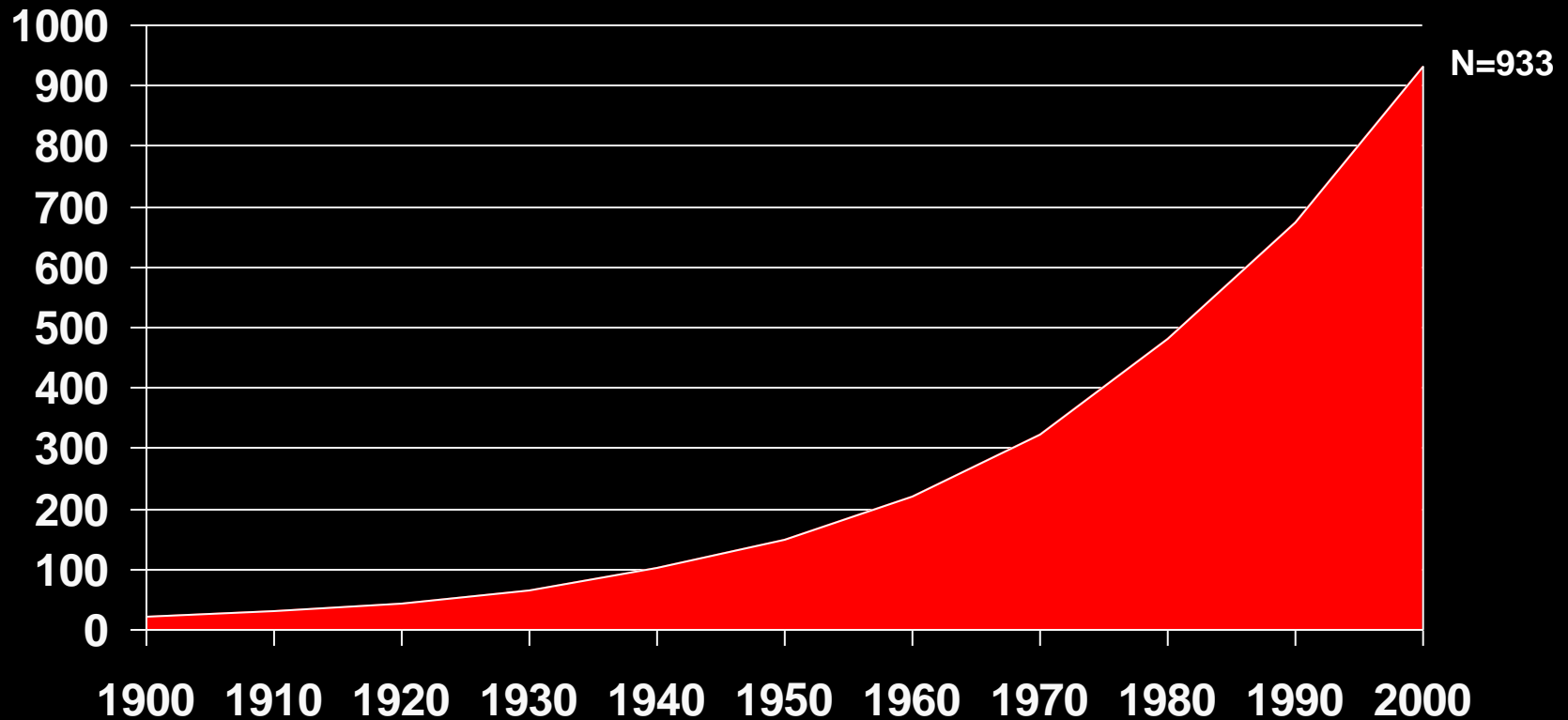
# The graduate

- Has been taught and can perform many basic clinical procedures - not necessarily the most modern
- No hands-on experience with many procedures common in modern dental clinics
  - from where and how can further training be obtained?
- Theoretic knowledge at zenith, from now on less time for reading / question of priorities
- Already from day 1 the science in dentistry advances further - how to stay updated?

# Information Explosion in Medicine and Health Care

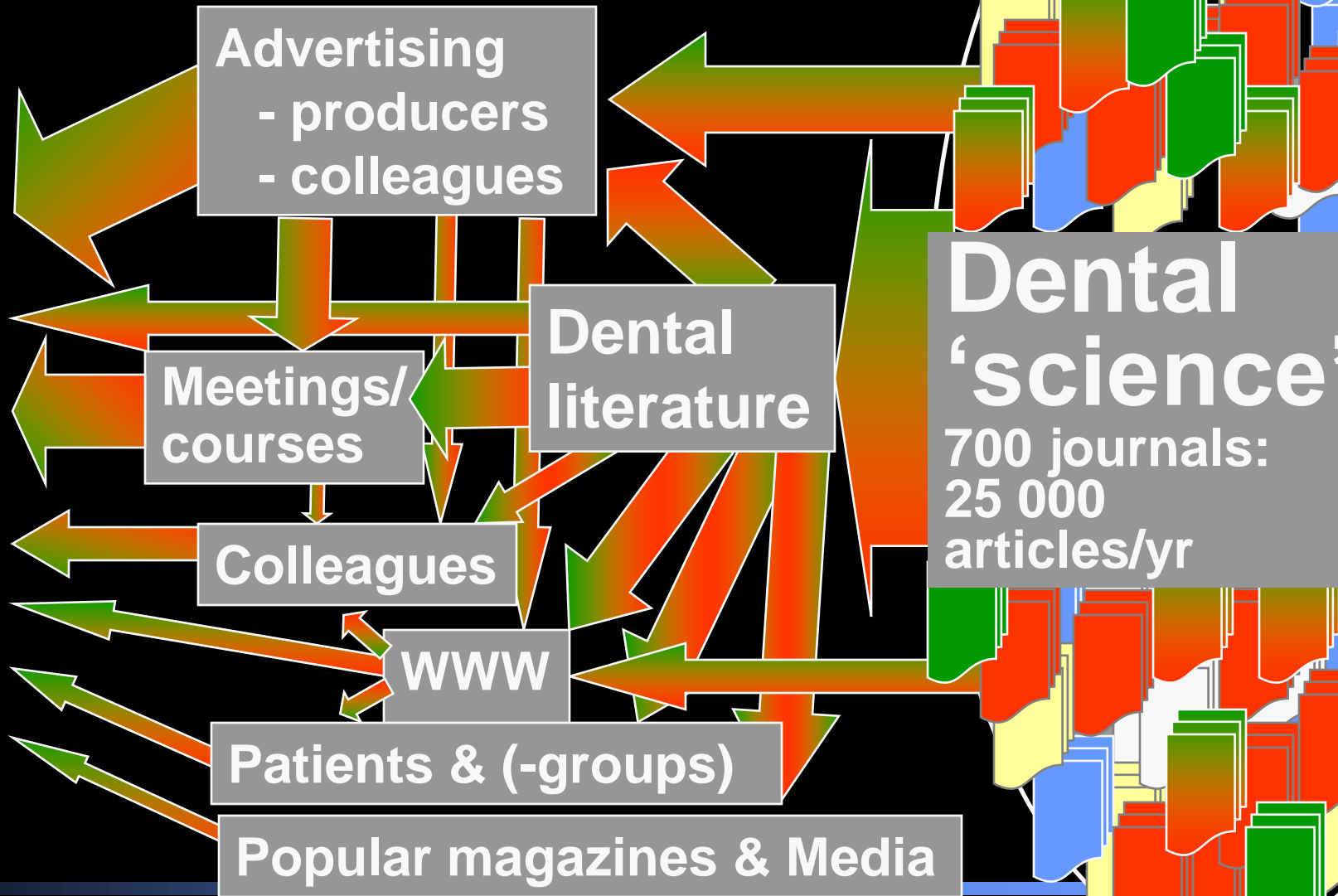
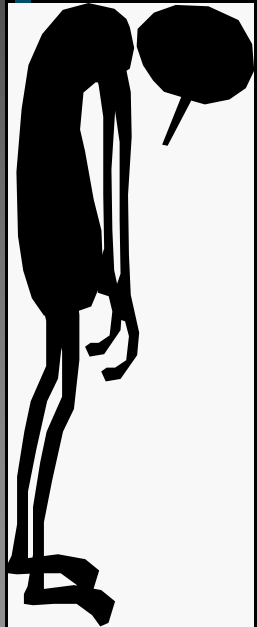
- Tremendous growth in publications
  - number of papers doubling every 5-10 years
  - increasing number of journals in a given field
- Related to numbers of physicians and scientists
  - volume of publications key to success
- Infomercial publications

# Dental journals in circulation today



Source: Ulrich's International Periodicals Directory

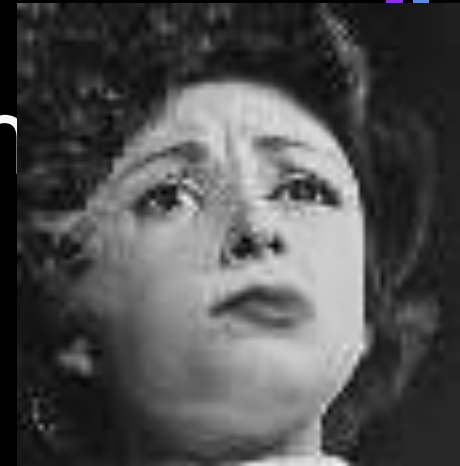
# Dentists' environment: Overload of information!



We have to consider not  
only  
the amount  
of information  
we receive, but also  
the quality  
of this information

What would your answer be if ...

a 32 y patient calls four hours after a wisdom tooth has been removed and complains about bleeding, pain and severe swelling.



She demands immediately some analgetics, some antifebriles and perhaps also antibiotics?

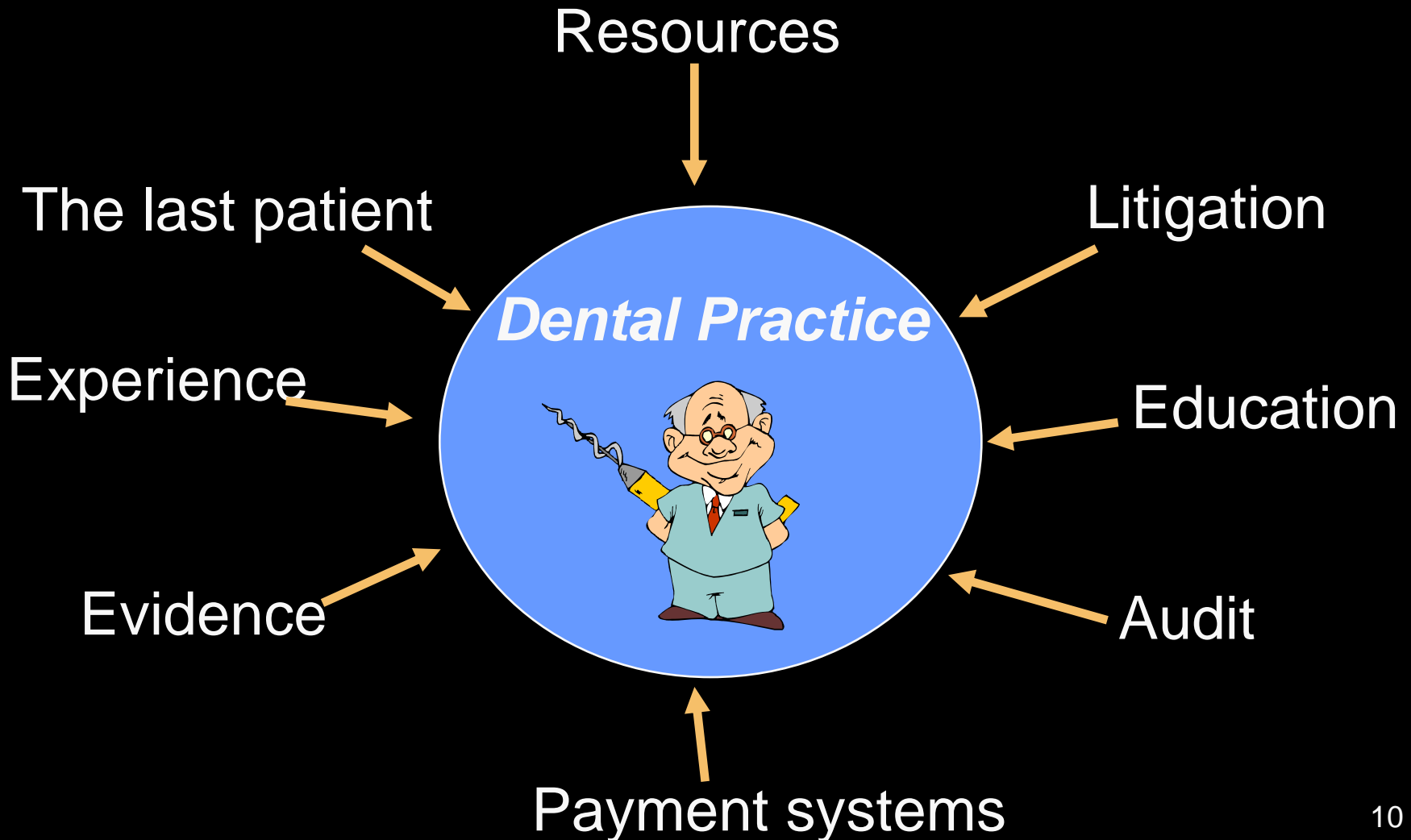


..or if ...

a 66 year old woman comes to your clinic because she feels she hasn't received any help from her former dentist about oral lichen planus. She wants to confer with you about a new treatment option described in the latest issue of 'Health & Fitness'



# Influences on treatment decisions



# Approaches when we're uncertain

- A patho-physiological appr.: this makes sense...
- An expert / "how I was trained" approach: I learned this worked / didn't work...
- An anecdotal appr.: this didn't work last time..
- A consultant approach: maybe I can ask a few colleagues I work with....
- A textbook approach: often outdated and no strong support.
- Confess that you don't know - or - do something and pray...
- or invent some combination of approaches

# Where can I find relevant clinical information when I need it fast?

- Can I consult a colleague?
- Are my journals and textbooks organised and updated?
- Is a library nearby?
- Can answers be found on the Internet?

Dentist

A par

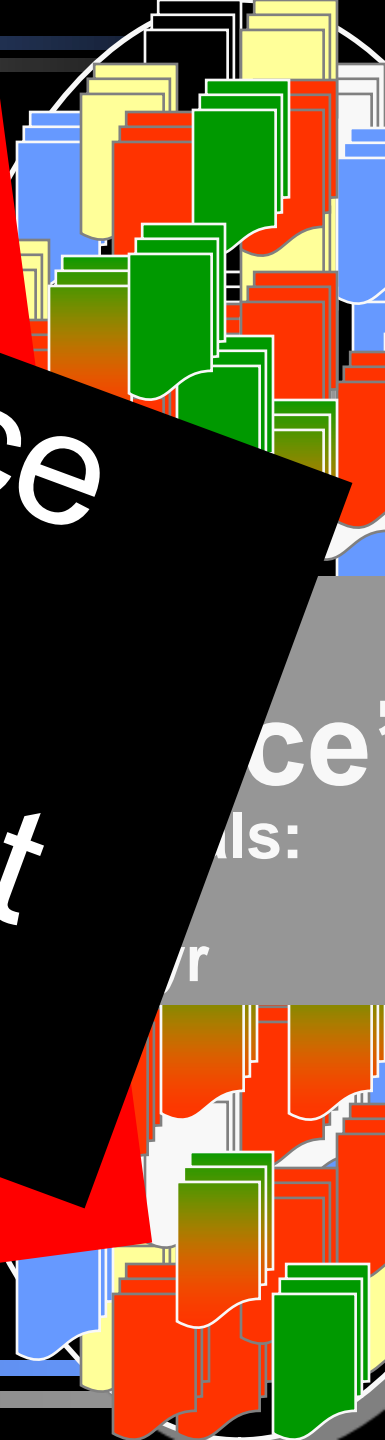
• busy practice  
+  
reimbursement  
pressure

In spite of

.... only a small  
appropriate for dire

.... we are ill equipped to digest  
synthesize the information

Magazines & Media



# The situation for many dentists today



1. We need new information every day, but most of our needs are never met

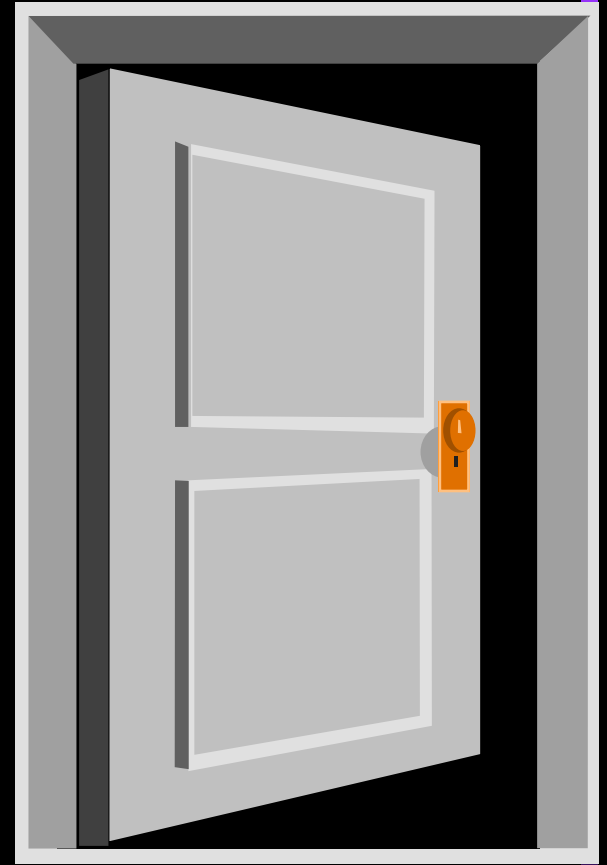


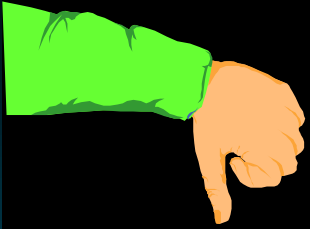
2. consequently, our clinical knowledge and performance in the clinic deteriorates



3. and traditional instructional continuing education courses do not improve our performance.

Maybe this  
new thing  
EBM can be  
of any help?

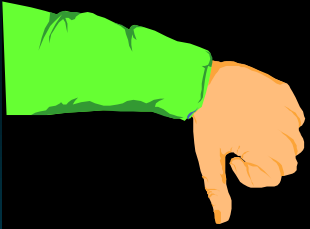




## Evidence Based Dentistry?!

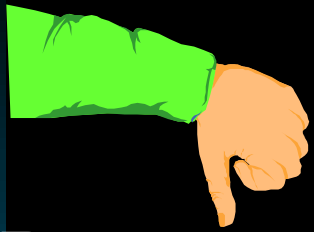
An increasingly fashionable tendency of a group of young, confident, and highly numerate medical academics to defame the performance of experienced clinicians by using a combination of epidemiological jargon and statistical manipulation.





## Evidence Based Dentistry?!

Arguments, usually presented with near evangelistic zeal, that no health related action should ever be taken by a doctor, a nurse, a purchaser of health services, or a politician unless and until the results of several large and expensive research trials have appeared in print and approved by a committee of experts



## Evidence Based Dentistry?!

Replaces original findings with subjectively selected, arbitrarily summarised, laundered and biased conclusions of indeterminate validity or completeness.

It has been carried out by people of unknown ability, experience, and skills using methods whose opacity prevents assessment of the original data.

## Evidence Based Dentistry?!

- A strategy for how to cope with changes - not about knowing all the answers.

It is not so much what you have read in the past, but about how you go about identifying and meeting your ongoing learning needs, and applying the new knowledge appropriately and consistently in new clinical settings.

## Evidence Based Dentistry?!

The practice of a process of life-long, problem-based learning in which caring for our own patients creates the need for evidence about the cutting edge knowledge concerning diagnosis, prognosis, therapy, and other clinical and health care issues.

## Two incentives for practicing Evidence-based Dentistry

- A strategy for solving clinical problems on a daily basis.
  - a practical aspect
- A strategy for being reasonably certain that my advises and treatment are the best available to my patients.
  - an ethical aspect

# Evidence Based Dentistry?!

The aim of evidence-based medicine is to eliminate the use of ineffective, expensive, or even dangerous medical decision-making

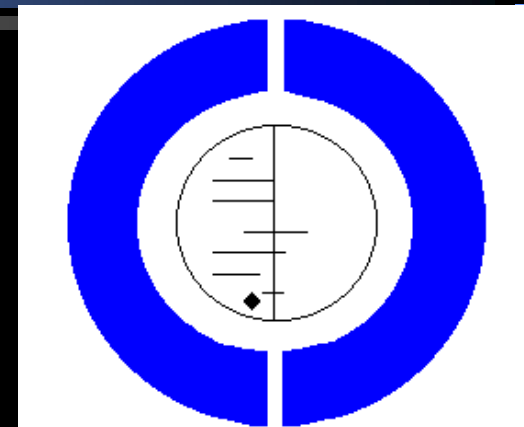
(Rosenberg & Donald, BMJ, 1995)

# Ethical reasons?

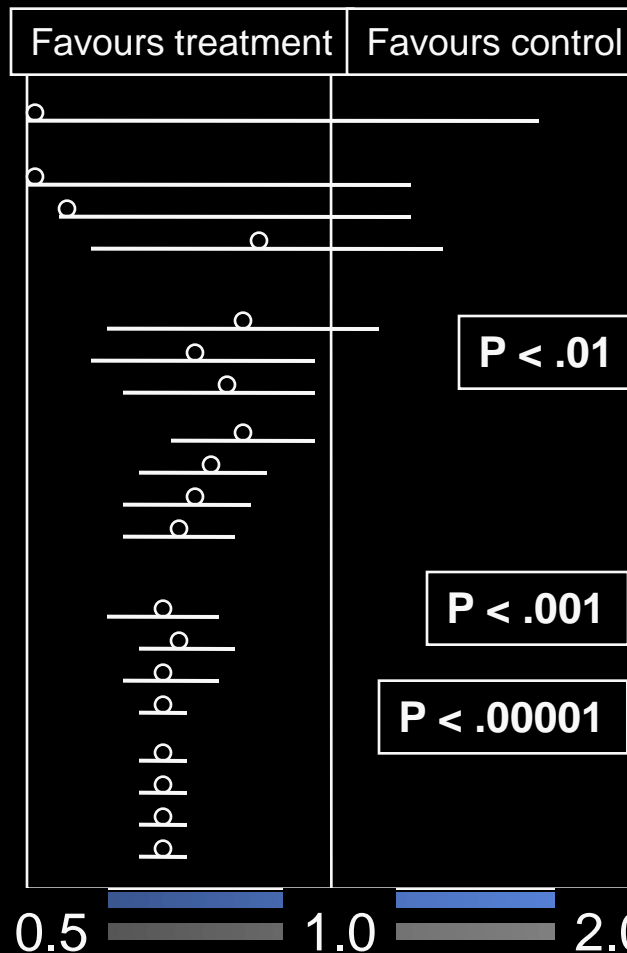
COCHRANE: Corticosteroids and premature birth

Lau et al. Streptokinase and myocardial infarction

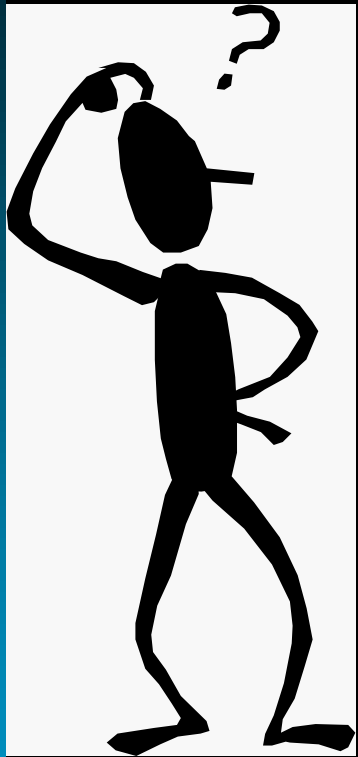
N Eng J Med, 1992.



Cumulative		
Year	RCTs	PTs
	1	23
1960		
	2	65
1965	3	149
	4	316
1970		
	7	1793
	10	2544
	11	2651
1975	15	3311
	17	3929
	22	5452
	23	5767
1980		
	27	6125
	30	6346
1985	33	6571
	43	21059
	54	22051
	65	47185
	67	47531
1990	70	48154



Textbook / review recommendations			
R	S	E	NM
			21
			5
		1	10
		1	2
		2	8
			7
			8
	1		12
	1	8	4
	1	7	3
5	2	2	1
15	8		1
6	1		



How can  
evidence-based  
dentistry be  
integrated in our  
daily practice?



# How is EBD practiced?

1. Generate focused clinical questions
  - Questions for articles on therapy, diagnostic tests, prognosis, harm, etc.
2. Efficiently find the evidence
  - Database searching: tools and techniques
  - Locating appropriately focused clinical studies
3. Determine validity, results, applicability
  - User's Guide to the Medical Literature
4. Apply the results of appraisal in clinical practice / teaching
5. Evaluate performance

# Practice of Evidence-based Dentistry

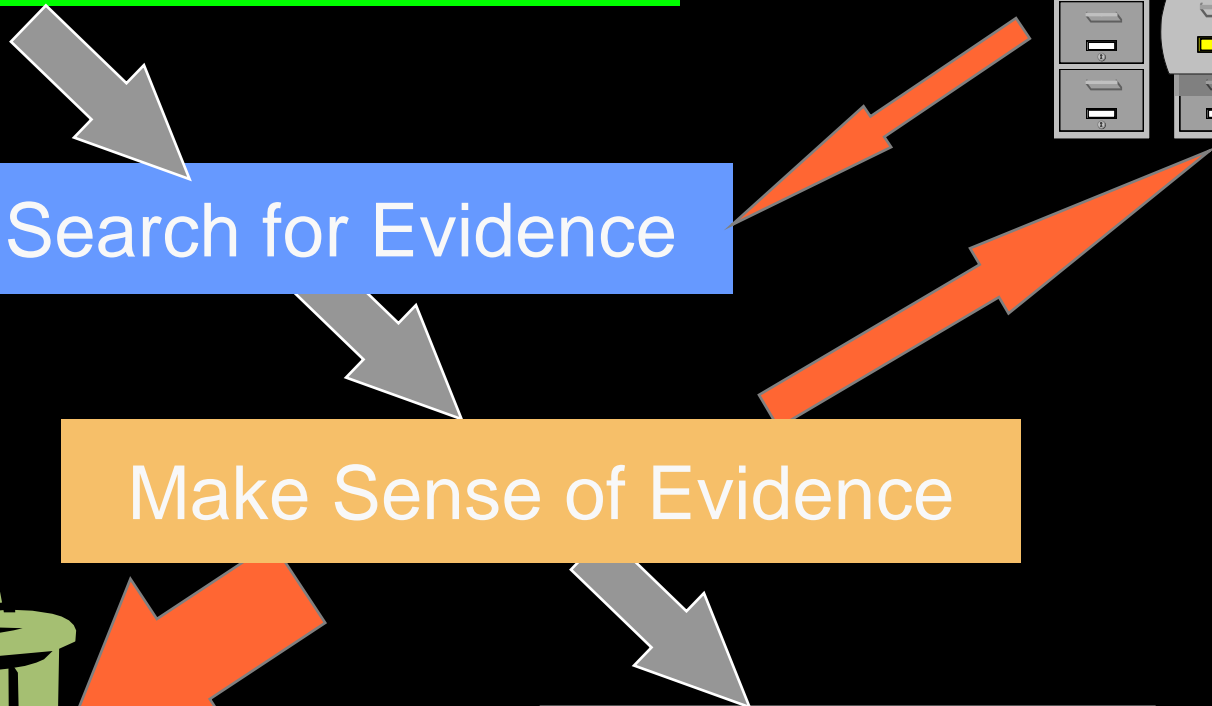
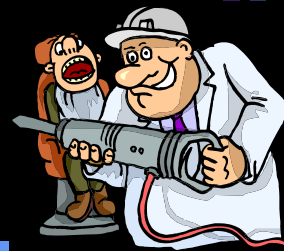
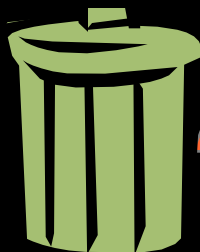
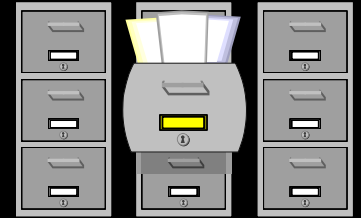


Identify Clinical Problem

Search for Evidence

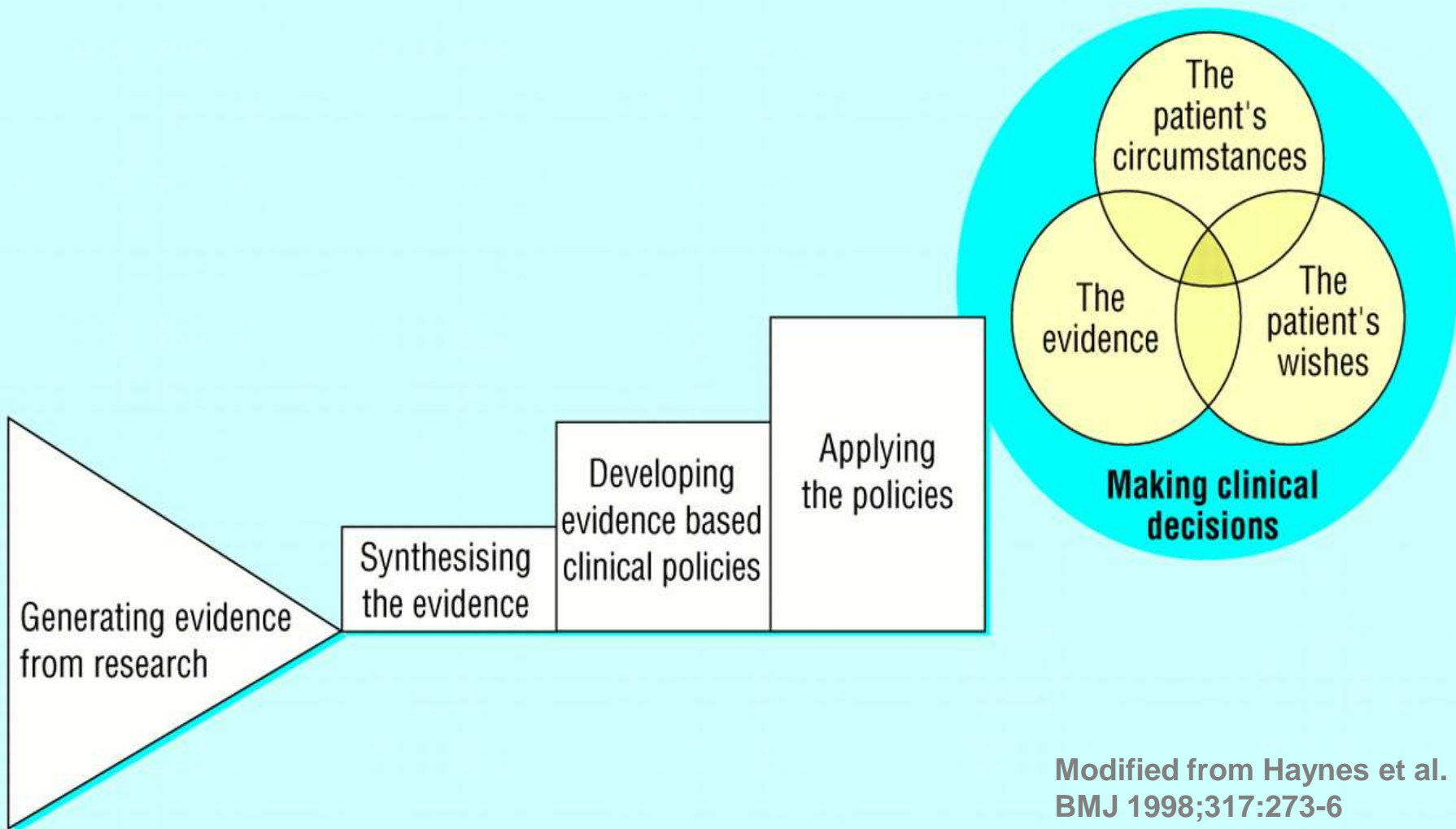
Make Sense of Evidence

Act on Evidence



# How can we apply EBD in our daily practice?

1. By accepting and applying practice protocols, policies and guidelines based on evidence-based principles



Modified from Haynes et al.  
BMJ 1998;317:273-6

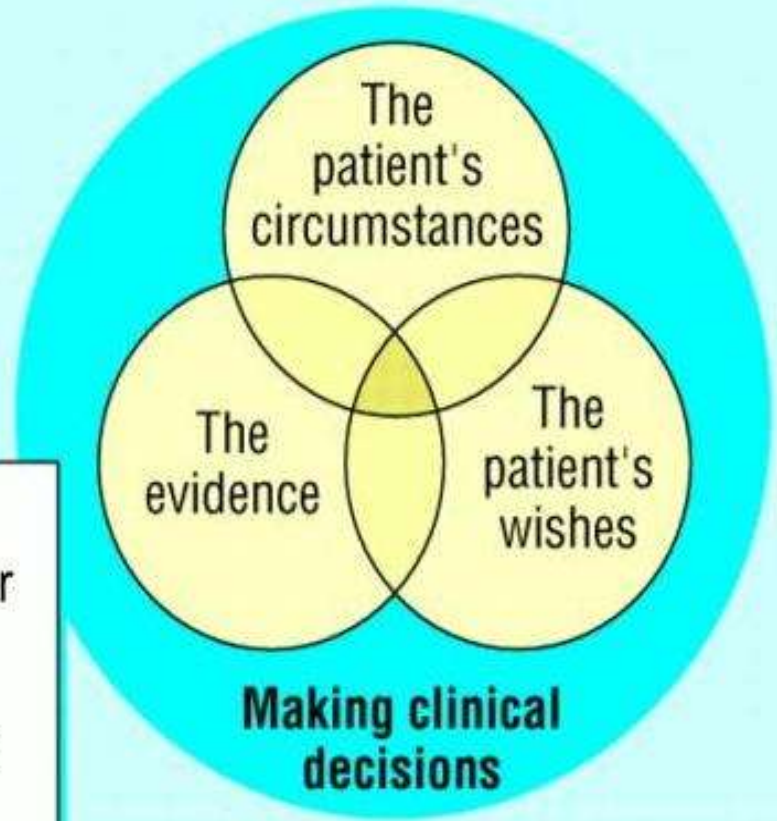
# How can we apply EBD in our daily practice?

2. By seeking and applying evidence-based dentistry summaries generated by others
  - Journals that critically appraise primary studies
  - Systematic reviews

Generating evidence  
from research

Synthesising  
the evidence

Appraise for  
reliability  
validity  
and results



Modified from Haynes et al.  
BMJ 1998;317:273-6

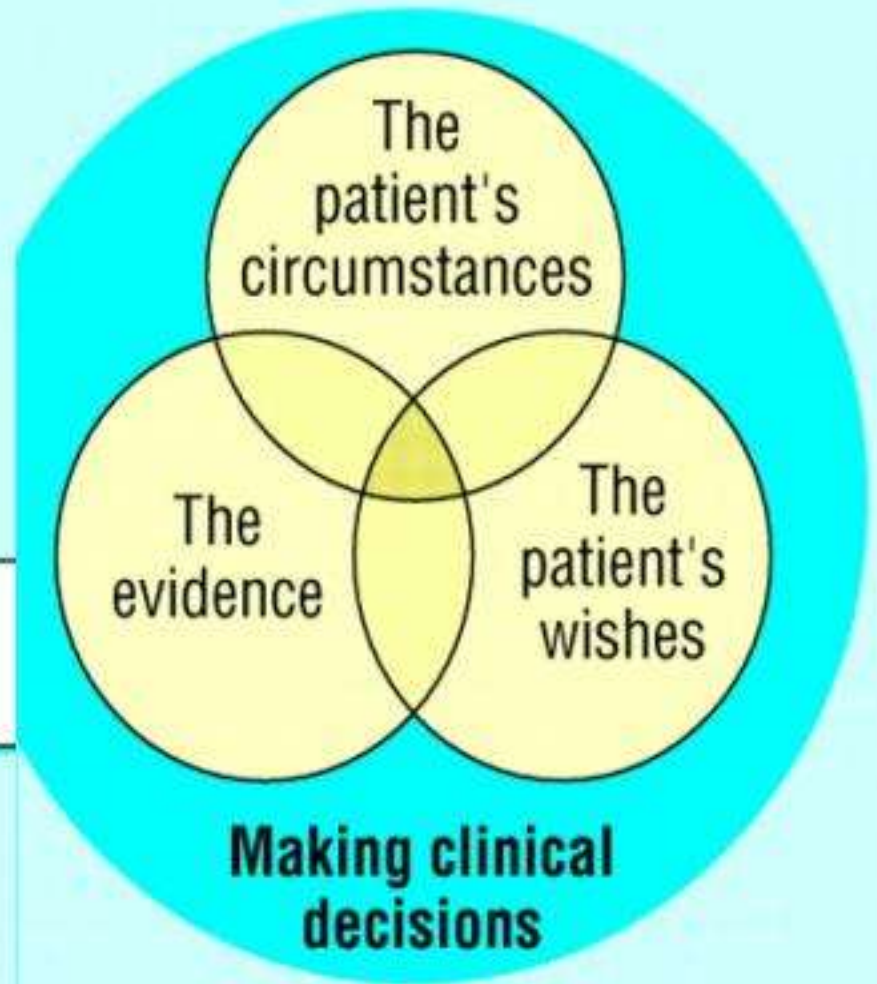
## How can we apply EBD in our daily practice?

### 3. By learning how to practice evidence-based dentistry ourselves

- Books
- Seminars
- Internet
  - Courses
  - Articles
  - Link banks

Generating evidence  
from research

Synthesising  
the evidence



Modified from Haynes et al.  
BMJ 1998;317:273-6