2nd International Conference of Evidence-Based Health Care Teachers & Developers
Utveggio Castle, Palermo (Italy), 10th -14th September, 2003

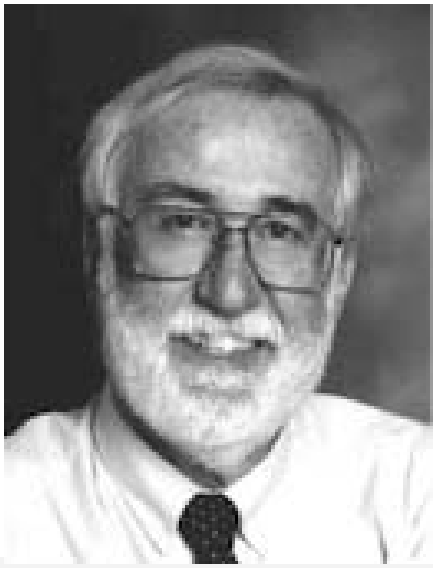
Sign-posting the future in EBHC

Dr Amanda Burls
West Midlands Health Technology Assessment Collaboration
University of Birmingham

Evidence-based health care

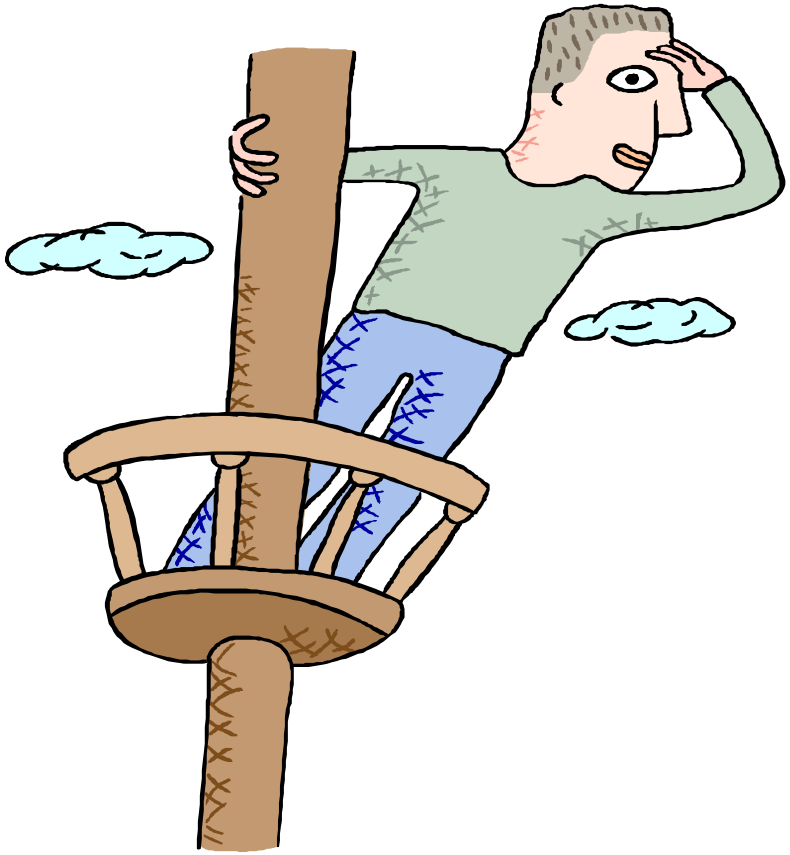
"Evidence-based medicine is the integration of best research evidence with clinical expertise and patient values"

Dave Sackett



"Evidence-based healthcare is the integration of best research evidence with clinical expertise and patient values when taking decisions"

Sign-posting the future in EBHC



A. Why did the EBHC movement come about?
B. Where have we got to?
C. Where do we want to be?
D. Future challenges for EBHC

A. Why did EBHC come about?

1. Exponential growth in knowledge and evidence
2. Wide variations in practice
3. Continued use of ineffective treatments
4. Excess use of inappropriate treatments
5. Poor uptake of effective practice
6. Technically feasible
7. Increasing demand on resources
8. Increasingly educated population

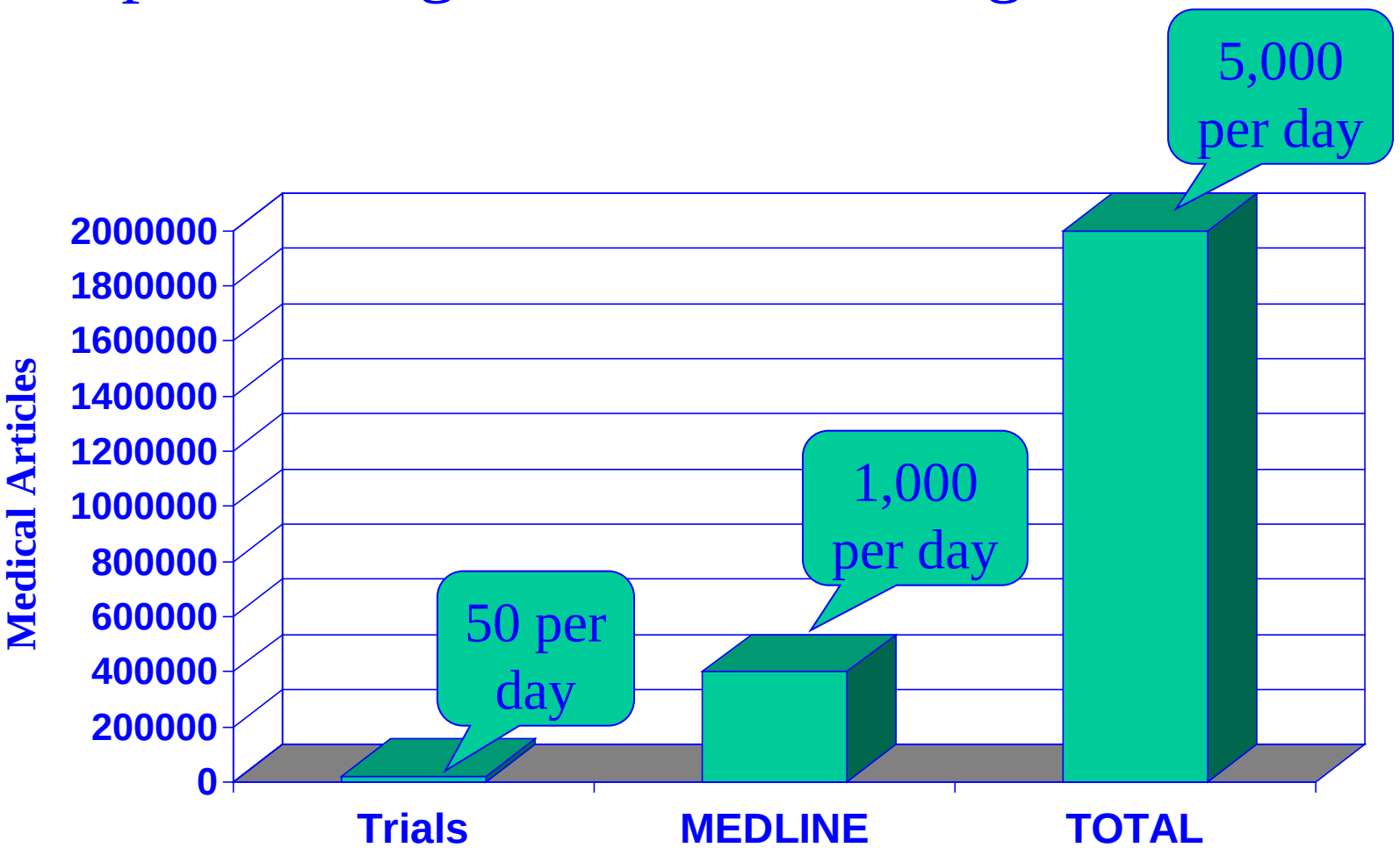
Exponential growth in knowledge and evidence

"Kill as Few Patients as Possible" - Oscar London

Rule 31 - Review The World Literature Fortnightly

This slide was adapted from a presentation given by Professor Paul Glasziou and we are grateful for his permission to reproduce it

Exponential growth in knowledge and evidence



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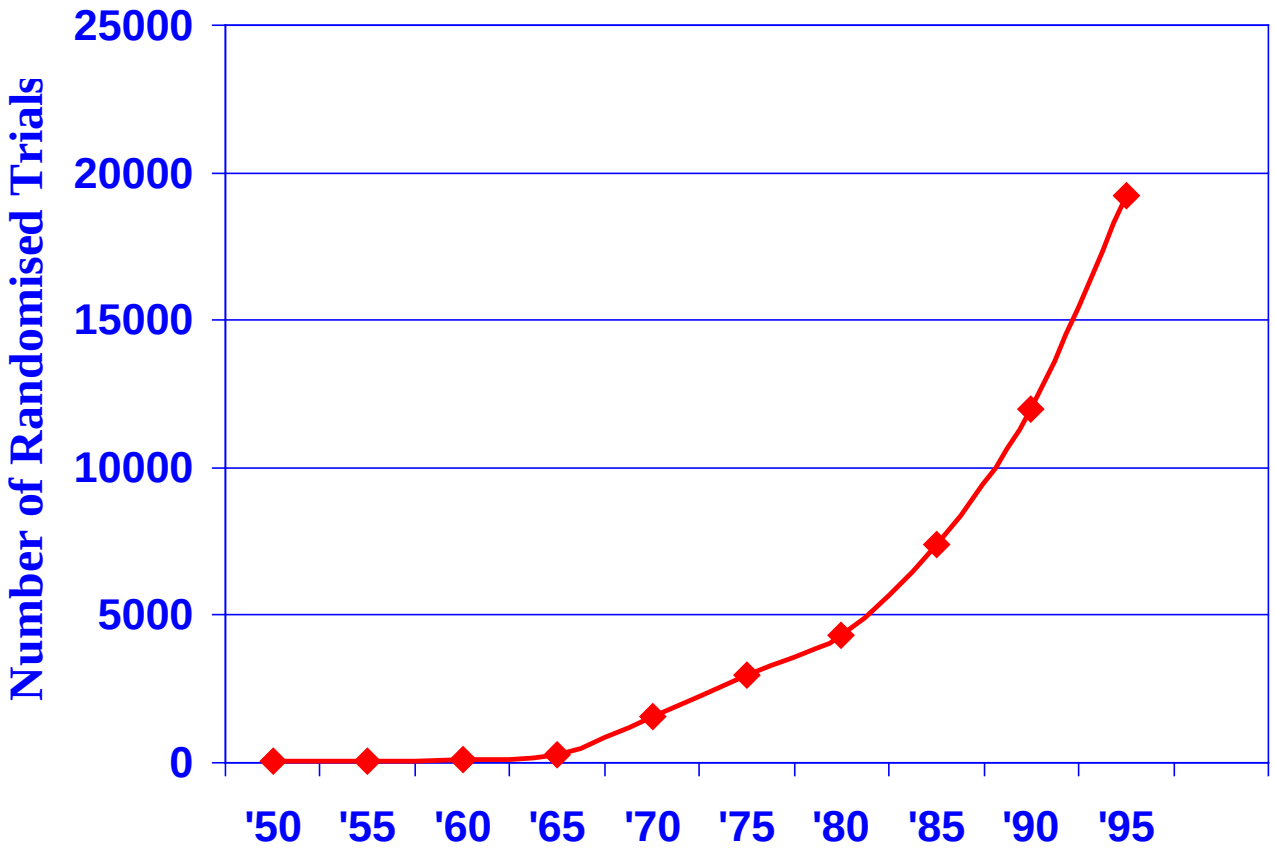
Exponential growth in knowledge and evidence



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Wide variations in clinical practice

"Mind you only <u>one</u> out of every ten doctors recommends it!"

Wide variations in clinical practice

- Not accounted for by
  - Clinical need
  - Patient or society's values
  - Resources
- CONCLUSION: Not everyone can be making the best decisions about health care!

Continued use of ineffective treatments/ Use of inappropriate treatments

- Radical mastectomy
- Removal of 3rd molar
- D&Cs in women under 40
- Antibiotics for viral infections
- Tonsillectomies
- IV fluid resuscitation in haemorrhagic shock
- HRT for preventive reasons in post-menopausal women

Systematic review of bed rest after medical procedures

- 10 trials of bed rest after spinal puncture
  - no change in headache with bed rest
  - Increase in back pain

Allen, Glasziou, Del Mar. Lancet, 1999

What happens in practice?

Protocols in UK neurology units - 80% still recommended bed rest after lumbar puncture

Serpell M, BMJ 1998;316:1709–10

…evidence of harm available for 17 years preceding...

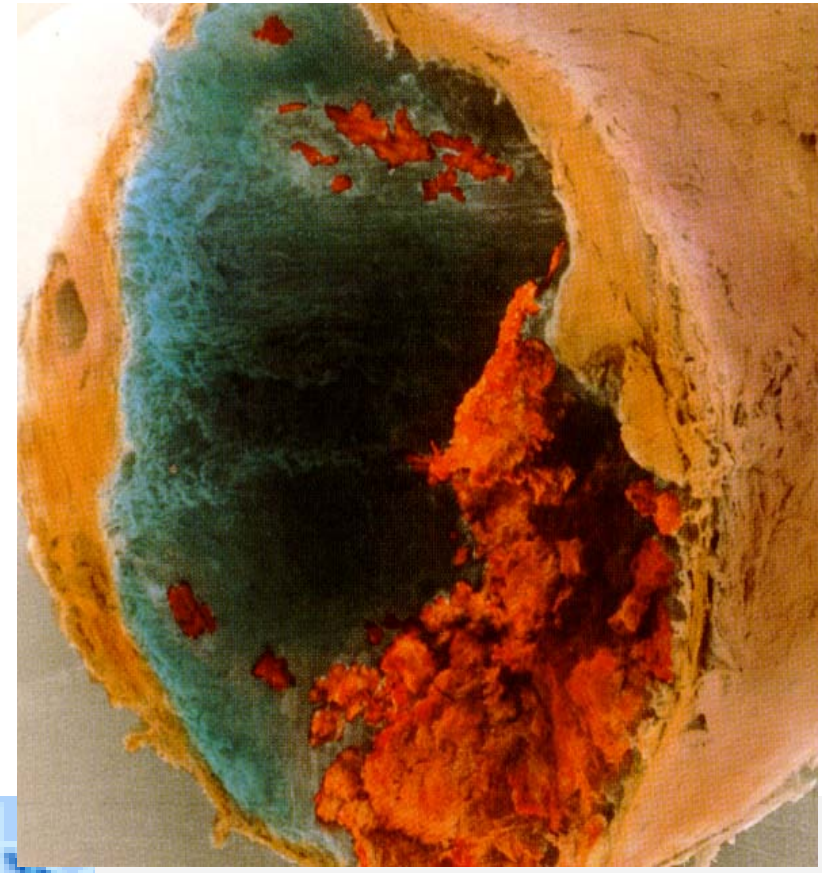
Inappropriately inappropriate treatments

"It is a scandal that the medical profession systematically mutilated thousands of women without the slightest evidence that this was likely to do more good than harm"

Iain Chalmers

In "But will it work, doctor?"

Poor uptake of effective practice



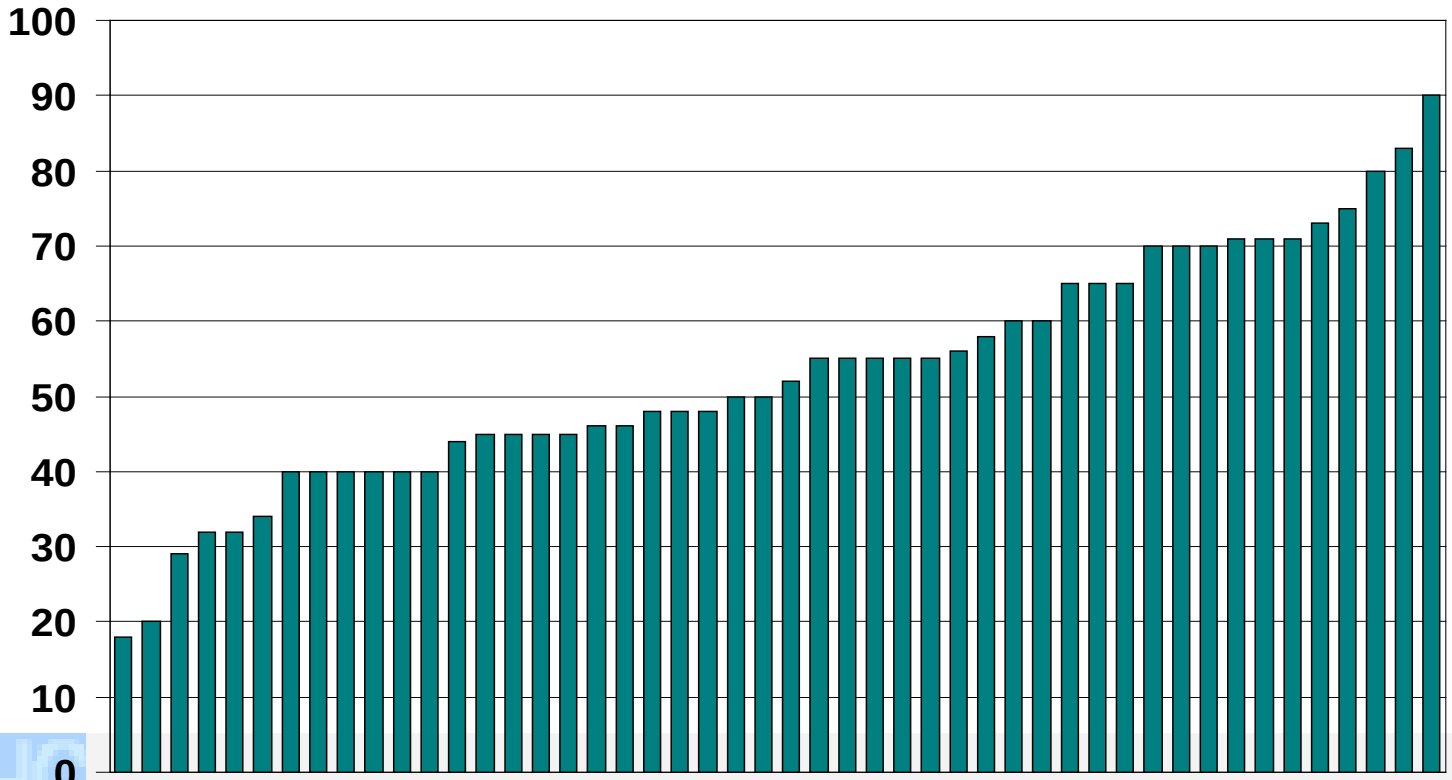
Thrombolysis is where patients are given drugs which breakdown the clot and to help restore circulation to the ischaemic tissue

The sooner thrombolysis is given, the more lives are saved[1]

Hours	NNT
0-1	15
>1-2	27
>2-3	38
>3-6	34
>6-12	56
>12-24	111

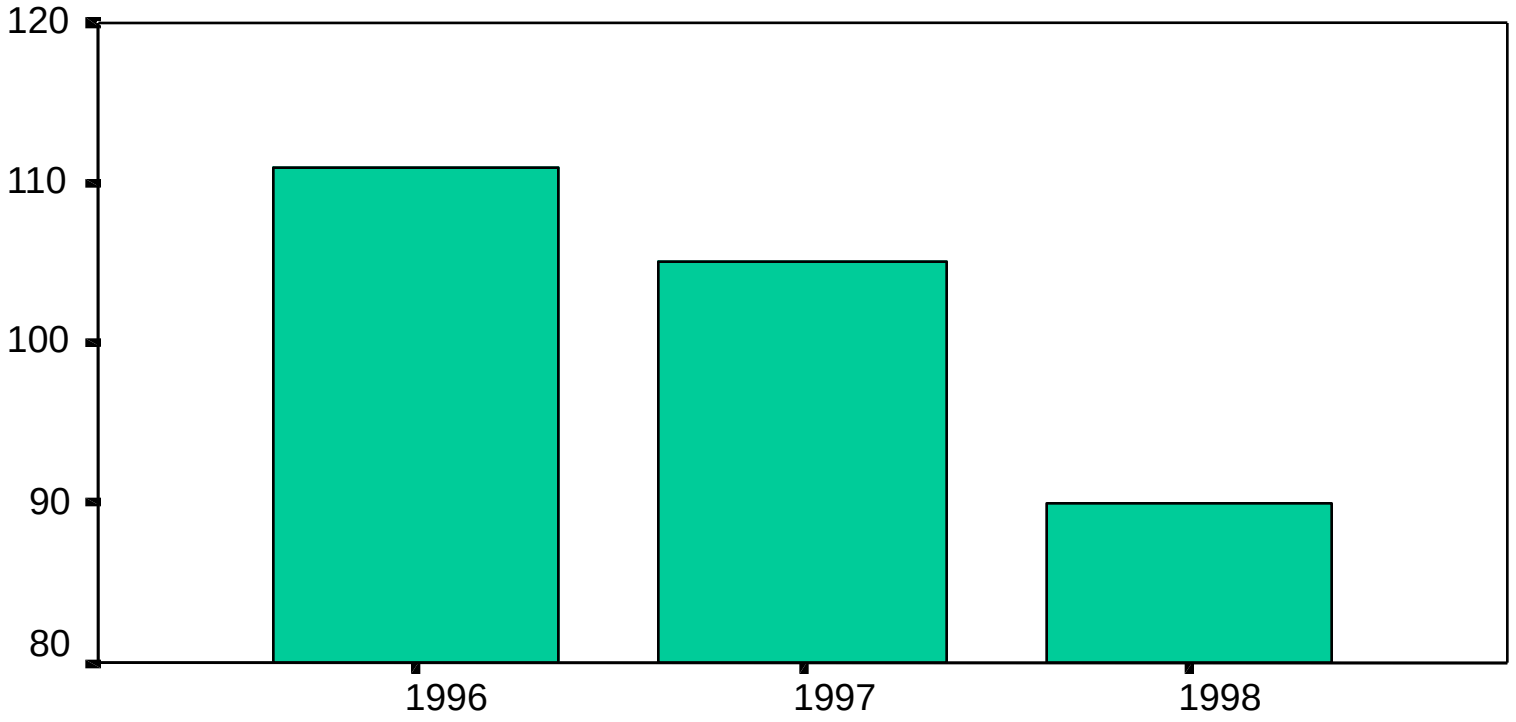
[1]Boersma E, *et al* Lancet **348:**771-776

“Door to needle time”: 48 UK hospitals in 1997



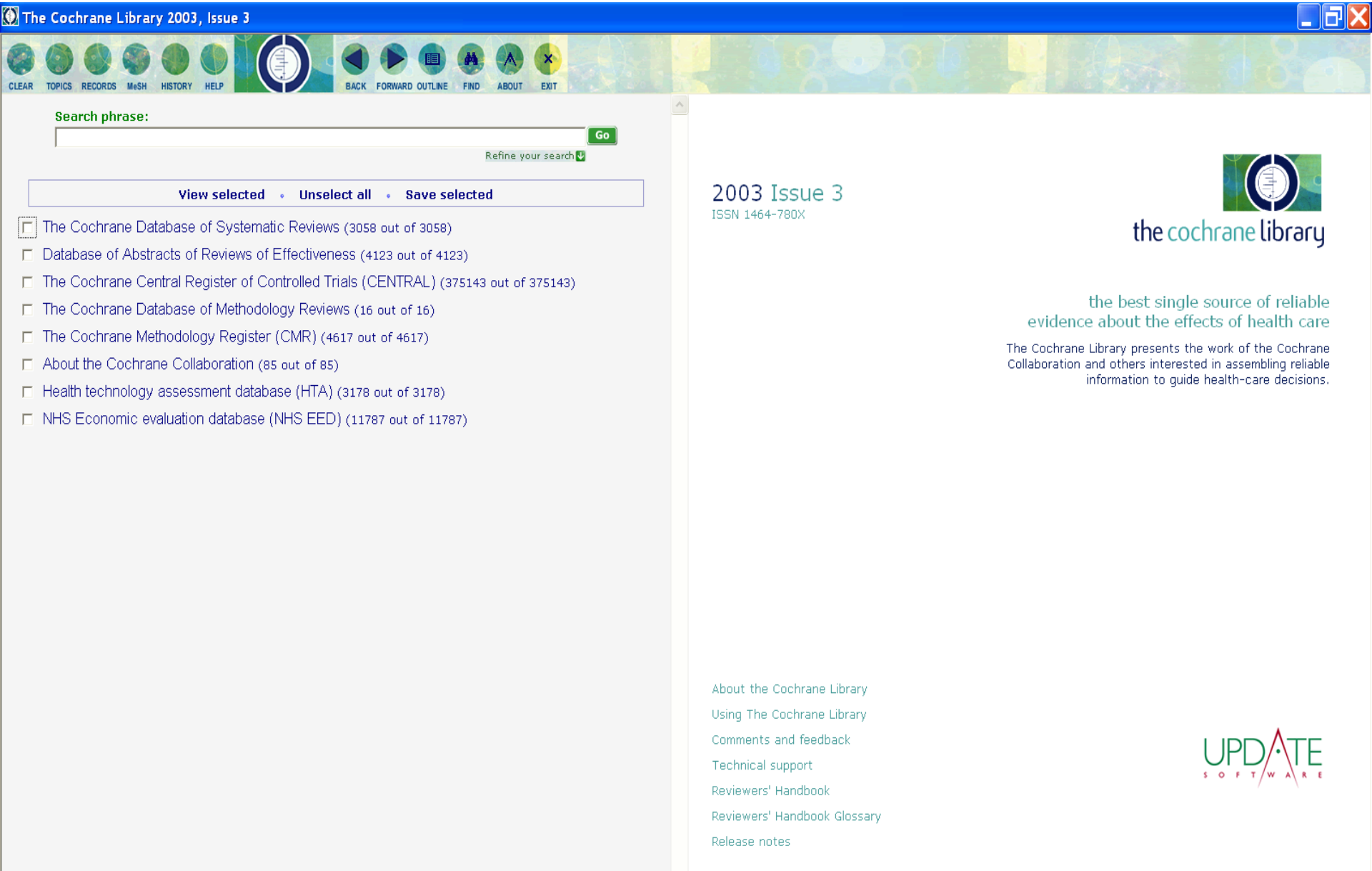
5-fold diff.

West Midlands Thrombolysis Project[1] Change in median"Call to Needle" time

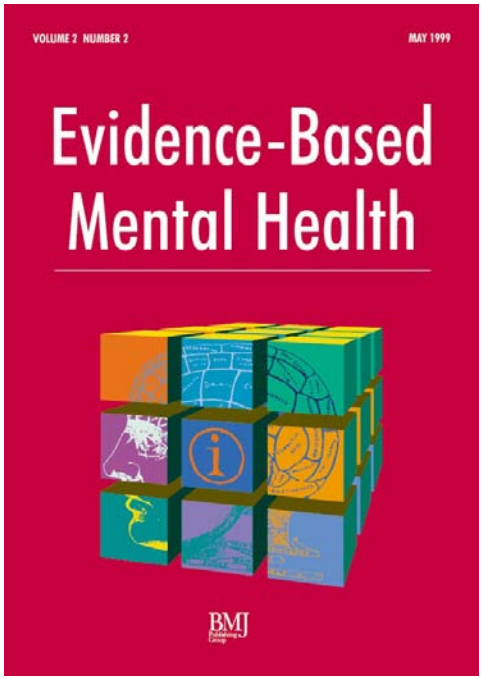


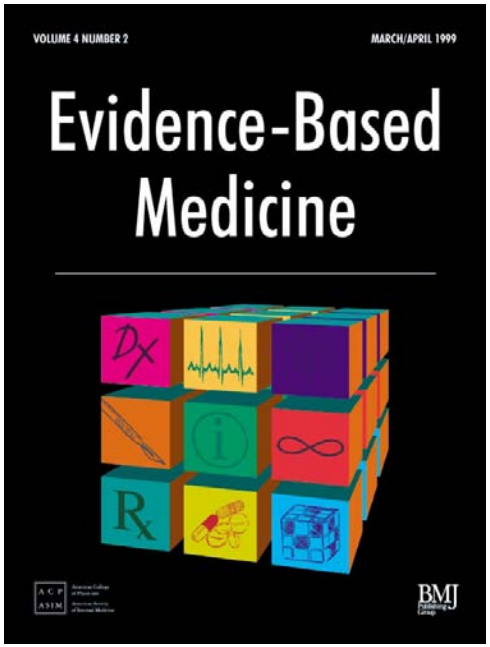
[1]Quinn T, Griffiths R, Birkhead J, (unpublished)

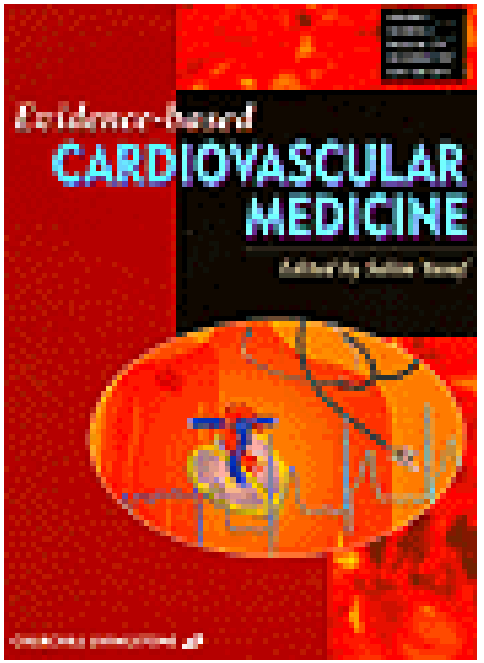
Technically feasible

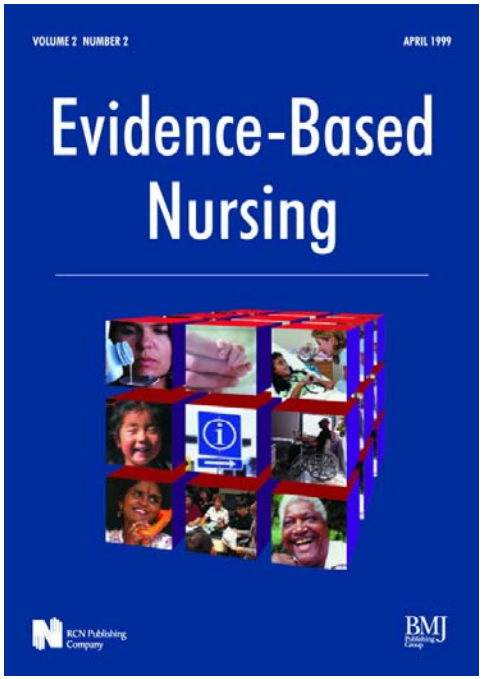


B. Where have we got to?

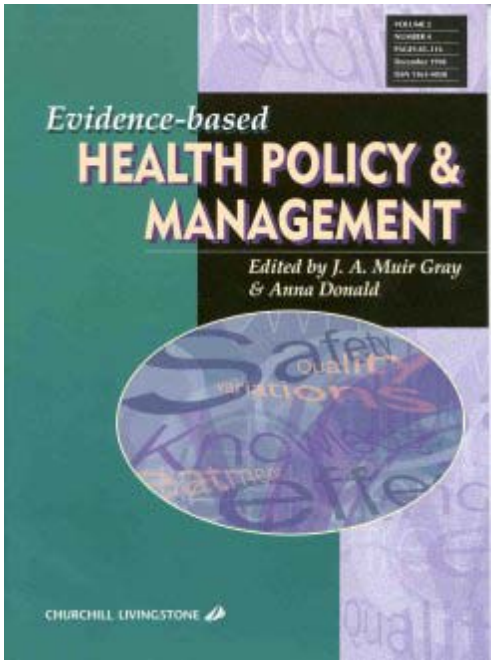

VOLUME 2 NUMBER 2
MAY 1999
Evidence-Based Mental Health
BMJ


VOLUME 4 NUMBER 2
MARCH/APRIL 1999
Evidence-Based Medicine
BMJ


Evidence-based
CARDIOVASCULAR MEDICINE


VOLUME 2 NUMBER 2
APRIL 1999
Evidence-Based Nursing
RCN Publishing Company
BMJ


ACP Journal Club
March/April 1999
Volume 130 • Number 2
Linking Research to Practice in Internal Medicine
Published Bimonthly by the American College of Physicians–American Society of Internal Medicine
THERAPEUTICS
DIAGNOSIS
PROGNOSIS
ETIOLOGY
QUALITY IMPROVEMENT
ECONOMICS
Other Articles Noted
Contents
Editorial: Evidence-based medicine and complementary medicine
Purpose and Procedure
Glossary


Evidence-based
HEALTH POLICY & MANAGEMENT
Edited by J. A. Muir Gray & Anna Donald
CHURCHILL LIVINGSTONE

evidence-based dentistry

Volume 1, Number 1 November 1998

Published as a supplement to the British Dental Journal

EVIDENCE-BASED

Purchasing

A selection of new material

In this issue

The aim of the NHS R&D programme is to ensure the supply of relevant, timely and cost-effective research findings to clinicians, managers and policy makers. The purpose of this newsletter is to highlight some of the new research emerging from R&D programmes in the last quarter.

Regional boundary changes

EVIDENCE-BASED PRACTICE

From the Publishers of *The Journal of Family Practice*

PATIENT-ORIENTED EVIDENCE THAT MATTERS

EDITORS

Statement of Purpose

CME CREDIT

How We Select and Evaluate Articles

The four editors of *Evidence-Based Practice* use the principles of The Usefulness Equation to choose articles from more than 80 journals that we review each month. The equation states:

Usefulness of Information = Relevance x Validity / Work

To decrease the amount of work you need to do each month, we find articles with the highest relevance to practicing clinicians. Preliminary study results, conjecture, or studies on animals are not for us. Once an article with relevant results is identified, we evaluate the information to make sure that it is valid. All of us are trained in the evidence-based approach to evaluating journal articles. Sometimes we will highlight articles with relevant outcomes but significant research flaws to let you know that the information, while enticing, cannot be relied on for patient care decisions. Expanded reviews for particularly relevant articles are included in the POEMs section of *The Journal of Family Practice*.

We have also added an editorial board to help keep us on target and to further ensure validity and relevance. The diverse group is drawn from academia and practice in the United States and Canada. The editorial board members are listed on page 12.

Our best editors, however, are our readers. Many improvements have been made since the inception of the newsletter on the basis of letters and phone calls from readers. We would love to hear your comments, positive and negative, about the newsletter. You can reach us by e-mail at *ebp@plet.msu.edu*. Thanks!

▶ POEM OF THE MONTH

Riboflavin for Preventing Migraines

Is riboflavin safe and effective as a prophylaxis for migraine headaches?

Organisational elements in UK

- NCCHTA and NHS R&D
- NELH/Cochrane Library/NHS CRD in York
- Academic independent HTA units
- National Institute for Clinical Excellence (NICE)
- Other bodies, e.g. National Screening Committee, National Prescribing Centre, SIGN, CHiQ, TRIP
- Professional organisations (e.g. Royal Colleges)
- Skills training/change management programmes (e.g. CASP, Clinical Effectiveness & Clinical Audit Programmes)
- Commission for Health Improvement
- National Audit Commission

Government rationale for NICE

"...there is currently no coherent approach to the appraisal of research evidence and the production of guidance for clinical practice.... NICE will end this confusion by providing a single, national, focus"

A First Class Service

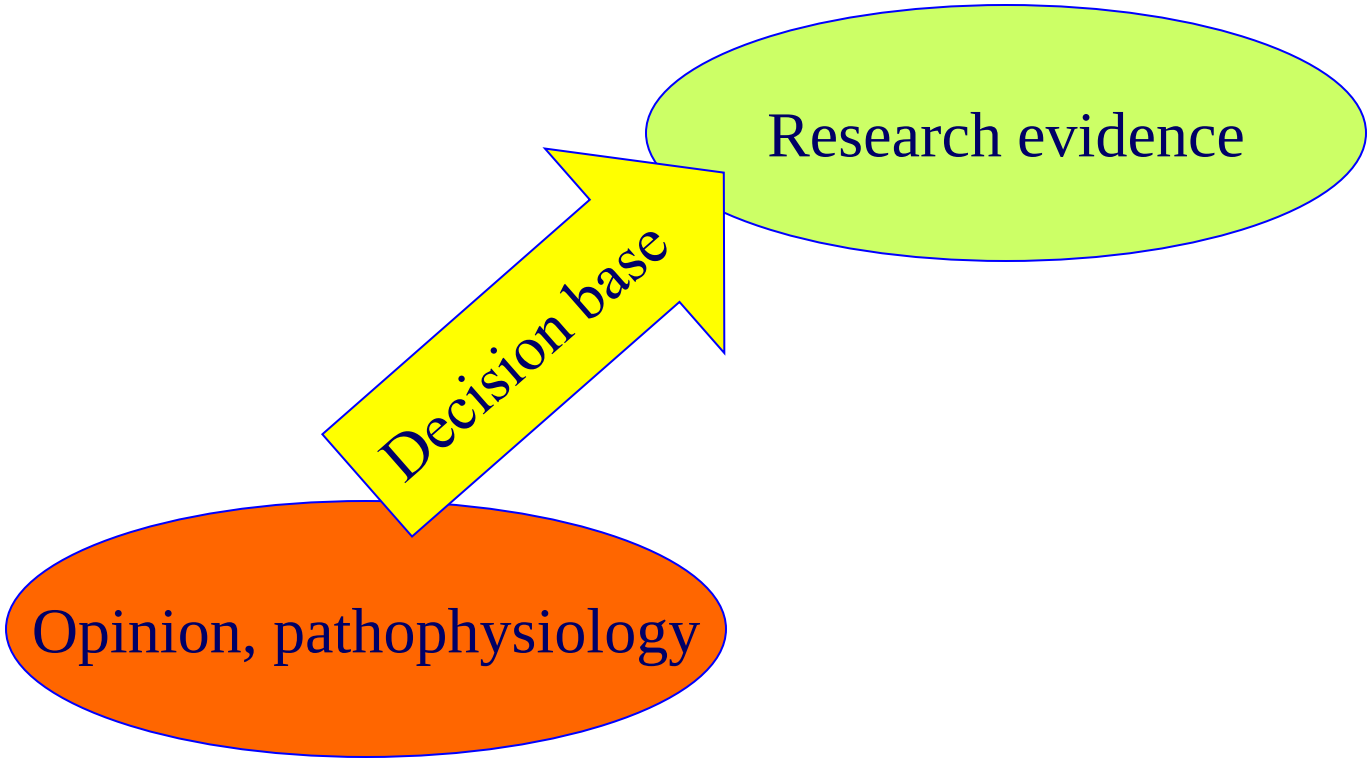
NICE's work programme

- Technology appraisals
- Clinical guidelines and audit
- Referral protocols
- Promoting effective practice
- Effective practice publications

C. Where do we want to be?

- We have a common goal
  - To make the best health care decisions we can
  - This is true whether we are users, policy makers, managers or providers of health services
  - In order to do this we need to be informed by the best available research evidence

C. Where do we want to be?



Reasons for variations in clinical practice

- Differences in patients' needs, demands or values
- Resources available
- "Supply led" e.g. number and type of doctors
- Financial system e.g."Fee for Service" or private health care
- Poor evidence
- Tradition
- Ignorance
- Failure to carry out what is known

How did we get here?

D. Future challenges for EBHC

1. Improving the evidence base
   - Primary research
   - Systematic reviews
   - Research synthesis
2. Improving skills to appraise, interpret and use research evidence
3. Creating a supportive infrastructure
4. Creating a culture which facilitates EBHC

D. Future challenges for EBHC – *1. **Improving the evidence base***

- Primary research
  - Methodologically sound
  - Addressing relevant problems including:
    a. Diagnostic tests
    b. Service delivery and organisation
    c. Effective methods for teaching/implementing
- Research synthesis
  - Systematic reviews
  - Integrating different types of evidence together (levels of evidence)

D. Future challenges for EBHC – *2.* ***Improving skills***

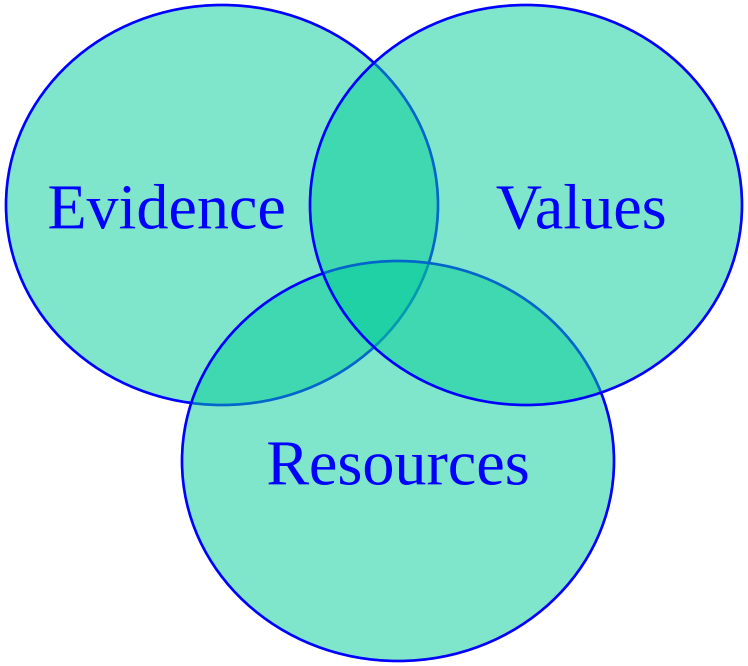
- Finding evidence
- Appraising evidence
- Sharing evidence
- Interpreting evidence
- Integrating with patient values
- Implementing
- Evaluating our practice

D. Future challenges for EBHC – *3.* ***Creating an infrastructure***

- Trustworthy summaries
- Evidence-based guidelines
- Up-to-date
- Timely
- Appropriate “push” and “pull” information
- Accessible
  - Fast
  - Hypertext – get down to primary evidence
  - Free

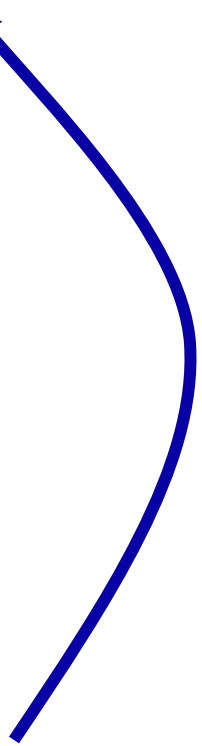
Evidence-based policy

- Decision-makers should use scientific, explicit, transparent and open methods when making decisions



Evidence-based policy requires

- Identify knowledge gaps
- Undertake relevant research
- Find research evidence
- Appraise evidence
- Synthesise evidence
- Disseminate evidence
- Implement evidence/EBP
- Monitor and evaluate practice



D. Future challenges for EBHC – *4. Creating an EB culture*

- Non-authoritarian
- Objective criteria for discussing decisions
- Capable of admitting and dealing with uncertainty
- TQM in a non-blame culture
- Reflective practice
- Respecting patient individuality
- Multi-disciplinary working
- Commitment and resources for life-long learning
- Necessary infrastructure (e.g. computer access, information specialists)

D. Future challenges for EBHC – *4. **Creating an EB culture***

"I suppose you know you're doing that all wrong."

D. Future challenges for EBHC – 4. ***Creating an EB culture***

D. Future challenges for EBHC – 4. ***Creating an EB culture***

Sign-posting the future in EBHC