Exploring Comparative Effectiveness: Fundamentals of Evidence-based Health and Introduction to the Cochrane Collaboration

National Health Policy Forum
Washington, DC
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July 25, 2008
Health care is complex:
Multiple questions in a single patient visit

• Example: Patient with high blood sugar
  – What risk factors does the patient have for diabetes? (*etiology*)
  – Likelihood of progression? (*prognosis*)
  – Potential benefit of weight loss? (*therapy*) *
  – Comparative benefit of weight loss vs drugs? (*therapy*) *
  – Potential harm of weight loss? Of drugs? (*harm*) *
  – Potential differences in outcome if the patient is treated before or after diabetes is detectable? (*screening*; *prevention*) *
  – Optimal degree of sugar reduction, once treatment found to be necessary? (*Encompasses several questions*)

  – * “best” evidence is systematic review of randomized trials (comparative effectiveness)*
“The integration of best research evidence with clinical expertise and patient values.”

Sackett et al, 2000
NY: Churchill Livingston
68. Evidence-Based Medicine
Knowledge translation: From clinical research to practice decisions

- Evidence generation
  - Clinical trials

- Evidence synthesis
  - Cochrane Collaboration, others

- Clinical policy (guidelines)
  - Professional societies, others

Application of policy:
- Evidence
- Clinician expertise
- Patient values

Knowledge translation: Evidence-based healthcare
What to do?

EVIDENCE

MIND THE GAP

GUIDELINES
General clinicians wanting to keep abreast have to examine 19 articles per day, 365 days per year.

How do we get providers & patients what they need?
The Cochrane Collaboration aims to help people make well-informed decisions about healthcare by preparing, maintaining and promoting the accessibility of systematic reviews of the effects of healthcare interventions.
It’s about collaboration

1993: 77 people from 12 countries
2008: >15,000 active contributors in 100 countries

Working together toward a common goal
• Published quarterly by John Wiley, Inc
• Cochrane Database of Systematic Reviews (n=5407)
• Other databases
  – Database of Abstracts of Reviews of Effectiveness (8,349)
  – CENTRAL Register of Controlled Trials (540,156)
  – Health Technology Assessments (7,486)
  – Economic Assessments (23,743)
### Commissioned systematic reviews in US, 2006

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The Cochrane Consumer Network contributes to every aspect of developing systematic reviews – developing the reviews, selecting important patient-centered outcomes, plain language summaries, participating in conferences, priority setting, governance.
Answering clinicians’ questions
Cochrane Evidence Gap Project

• Examine practice American Academy of Ophthalmology (AAO) guidelines for primary open angle glaucoma to identify problems clinicians consider important
• Develop answerable clinical questions from guidelines
• Ask American Glaucoma Society (AGS) doctors to rank the importance of each questions to good patient care
• Identify existing evidence (clinical trials and systematic reviews) for each question
• Work with stakeholders to prioritize systematic reviews for guideline activities
• Work with funders to prioritize new research where it is needed
Examples of clinical questions from AAO guidelines and ranked by AGS
Comparative effectiveness is not just about drugs

• Does discussion of the benefits and harms of medical treatment with patients affect patient satisfaction?
• Does routine patient assessment help reduce systemic side effects, toxicity, and possible interactions of glaucoma medication?
• What is the relative effectiveness of selective laser trabeculoplasty compared with other trabeculoplasty techniques in lowering intraocular pressure in patients with open angle glaucoma?
What’s in it for countries that invest in Cochrane?

• Leveraging of investment
• Efficient use of resources
• Trusted source
• Focus on high quality evidence
• Building capacity through education and training
• Finding out what works leads to informed healthcare investment
• Cochrane is global, independent and likely to survive local political pressures