



## A Blueprint for Bridging the EBM – Medical Practice Gap

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### Evidence Based Medicine – potential waiting to be realised

- Measurable clinical outcomes that clinicians and patients care about: symptoms, morbidity, quality of life, and mortality
- “They can enable a move to ‘Patient Centric’ care.”

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## EBM in the practice context

- Challenges of adoption into the daily practice
  - Constraints on clinician's time
  - Formulating search strategies
  - ...
- lack of patient/whanau/social awareness
  - essentially a clinician's tool
  - Free for NZ'ers! <http://www.moh.govt.nz/cochranelibrary>
- Requires an 'eco-system' supporting its use



## NZGG – bringing EBM to NZ

**New Zealand GUIDELINES GROUP**  
Te Rau Kōwhiri Tohutoro  
Promoting Effective Health and Disability Services

### Management of Type 2 Diabetes

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**FULL TEXT GUIDELINE**

PDF Format (1503.2 k)

Minimum Download Times (in seconds) - **56k:** 214.7s    **128k:** 107.4s    **256k:** 53.7s

**SUMMARY DOCUMENT(S)**

Management of Type 2 Diabetes – Summary  
PDF Format (202 k)

Predict CVD - Diabetes  
ECDS CVD Risk Assessment: Calculation, adjustment and classification  
PDF Format (528 k)



## EBM - typical user experience

The screenshot shows a typical user experience on the Cochrane Library website. The page title is "Interventions for preventing and treating stress fractures and stress reactions of bone of the lower limbs in young adults". The authors listed are K. Rome, HHG Handoll, and R. Ashford. The page includes a sidebar with a table of contents for the review, such as "Abstract", "Plain language summary", "Background", "Objectives", "Criteria for considering studies for this review", "Search methods for identification of studies", "Methods of the review", "Description of studies", "Methodological quality", "Results", "Discussion", "Authors' conclusions", "Potential conflict of interest", "Acknowledgements", and "Notes". The main content area contains an abstract, background information, objectives, and a search strategy. The search strategy states: "We searched the Cochrane Musculoskeletal Injuries Group Specialised Register (April 2004), the Cochrane Central Register of Controlled Trials (The Cochrane Library Issue 1, 2004), MEDLINE (1966 to September week 1, 2004), EMBASE, CINAHL, Index to UK Theses, reference lists of relevant articles and contacted trialists." The footer of the page includes the logo for "essence NETWORKS LTD" and a copyright notice for 1999-2006 John Wiley & Sons, Inc.

## typical user experience: Browse/Search

The screenshot shows the browse/search page on the Cochrane Library website. The page features a search bar with a dropdown menu set to "Title, Abstract or Keywords" and a "Go" button. Below the search bar, there are links for "Advanced Search", "MeSH Search", "Search History", and "Saved Searches". The main content area is titled "BROWSE TOPICS BY COCHRANE COLLABORATIVE REVIEW GROUP" and lists various topics under the "Musculoskeletal" category. The topics include: Gout [uric acid, hyperuricemia, pseudogout] (3), Lupus Erythematosus [systemic, discoid, cutaneous, lupus nephritis] (3), Osteoarthritis (45), Osteoporosis [premenopausal, post-menopausal, corticosteroid induced, osteoporosis in men] (24), Pediatric Rheumatology [juvenile rheumatoid] (3), Legg Perthes (1), Paget's Disease (1), Physical activity (1), Reactive arthritis (1), Rheumatoid Arthritis (43), Soft tissue [rheumatism, rheumatic disease, bursitis, tendonitis] (32), Spondylo-arthropathy [psoriatic arthritis, ankylosing spondylitis, reiters disease] (9), Systemic sclerosis [Raynauds, scleroderma] (5), and Vasculitis [Behcet's, takayasu's arteritis, purpura, schoenlein-henoch, polyarteritis, nodosa, giant cell, arteritis, Wegener's granulomatosis] (9). The footer of the page includes the logo for "essence NETWORKS LTD" and a copyright notice for 1999-2006 John Wiley & Sons, Inc.

## leading edge approaches



### Case 1: Cardiovascular Risk

A 46 y/o male smoker

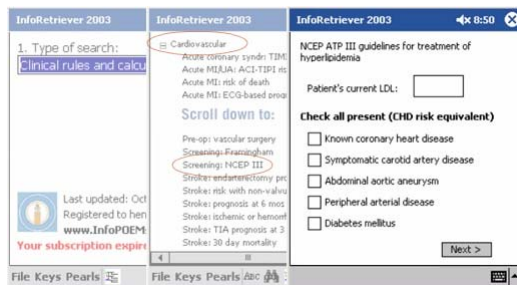
- PMH significant for hypertension treated with HCTZ. Most recent BP = 138/86.
- FH: Both parents have HTN over age 70, no h/o CAD.
- Lipids: Chol = 197; HDL = 41; LDL = 141.

#### Questions:

- \* What is his risk of an AMI or sudden cardiac death in 10 years?
- \* How much will lowering the SBP below 130 reduce the risk?
- \* How much will stopping smoking affect his risk?



## leading edge approaches - Search



The screenshot shows the PDRhealth website interface. At the top, there are navigation links for "disease overviews", "health and wellness", "drug information", and "clinical trials". A search bar is present with a "GO" button. Below the navigation, there are advertisements for "INVESTools - Investor..." and "Bad Credit Refinance". The main content area features a "clinical trials" header with a small image of people. Below this is the title "CenterWatch Gateway to PDQ® - NCI's Cancer Clinical Trial Listings". Underneath, there is a "Trial Information" section. A "Study Summary" section follows, stating: "This phase II trial is studying how well giving bevacizumab together with combination chemotherapy works in treating patients who have undergone surgery for breast cancer that has spread to the lymph nodes." Below the summary are "Eligibility criteria" which include: "At least 18 years old" and "Has undergone surgery to remove the tumor within the past 4-12 weeks". On the right side of the trial information, there are links for "Back to Search Results" and "New Search". At the bottom of the page, there is a footer with "© essence NETWORKS LTD" and the "essence NETWORKS LTD" logo.

The screenshot shows a page from The Cochrane Library. The header includes the Cochrane logo and the text "The Cochrane Library Evidence for healthcare decision-making". There is also a "WILEY InterScience" logo. The main content area is titled "[Review] Interventions for preventing and treating stress fractures and stress reactions of bone of the lower limbs in young adults". Below the title, the authors are listed as "K Rome, HHG Handoll, R Ashford". The text indicates it is from the "Cochrane Database of Systematic Reviews 2006 Issue 3", published by John Wiley & Sons, Ltd. in 2005. A citation is provided: "This record should be cited as: Rome K, Handoll HHG, Ashford R. Interventions for preventing and treating stress fractures and stress reactions of bone of the lower limbs in young adults. *Cochrane Database of Systematic Reviews* 2005, Issue 2. Art. No.: CD000450. DOI: 10.1002/14651858.CD000450.pub2." The page is divided into sections: "Abstract", "Background" (stating "Stress reaction in bone, which may proceed to a fracture, is a significant problem in military recruits and in athletes, particularly long distance runners."), "Objectives" (to evaluate evidence from randomised controlled trials), and "Search strategy" (listing databases searched like Cochrane Musculoskeletal Injuries Group Specialised Register, Cochrane Central Register of Controlled Trials, MEDLINE, EMBASE, etc.). On the left side, there is a sidebar with a "PDF (Size 356K)" link and a list of links: "Abstract", "Plain language summary", "Background", "Objectives", "Criteria for considering studies for this review", "Search methods for identification of studies", "Methods of the review", "Description of studies", "Methodological quality", "Results", "Discussion", "Authors' conclusions", "Acknowledgements", and "Notes". At the bottom, there is a footer with "© essence NETWORKS LTD" and the "essence NETWORKS LTD" logo.

## New Learning Objectives

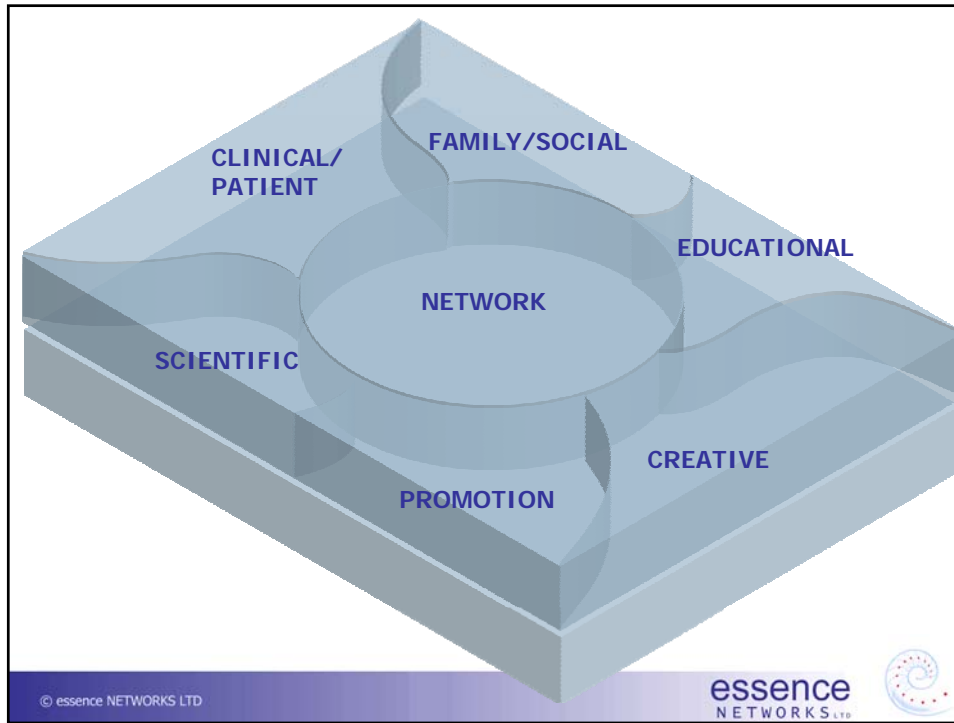
Learning Objectives (Clinician's Perspective)	Potential
Focused on <b>actual</b> learning needs	High
Balances diastolic ( <b>passive</b> ) with systolic ( <b>active</b> ) learning	High
<b>Connects</b> "new" knowledge with old	High
Involves <b>everyone</b> on the team	High
Attends to both <b>feelings</b> and <b>knowing</b> of learning	High
Takes advantage of the <b>clinical setting</b> , available time and other circumstances	Medium
Balances <b>preparedness</b> with <b>opportunism</b>	High
Makes <b>explicit</b> how to make judgements, whether about the evidence itself or how to integrate evidence with other knowledge, clinical expertise, patient preferences	Medium
Builds <b>lifelong</b> learning abilities	Medium



## motivations for the blueprint

- Work from a 'whole of systems' approach
- Work across boundaries: clinical, administrative, educational, geographic, social....
- Get knowledge to 'find the clinician'
- Get value from '*tacit*' interactions
- *Can we promote articles in a way that is similar to advertising techniques?*





## understanding the risks

Name of Risk	Description of Risk	Perspective
Poor content separation	User Perception that the Promotion is part of the review content.	Medical
Inaccurate Targeting	The wrong Promotion is matched to the wrong article	Medical, Information
Preferential Promotion	Publishers promote some articles above others - The success of some articles being promoted better due to more skilful advertising may result in others with equal scientific merit not being represented due to poorer promotion quality.	Clinical Governance
Distrusted Agenda	Distrust of the agenda of the promotion	Clinical Governance
Distraction experience	The promotions are too intrusive, annoying or distracting	Medical
Inappropriate Promotion	Inappropriate promotions – the promotions are not aligned to ethical principles	Clinical Governance, Legal
Privacy Invasion	Invasion of Privacy of user PCs due to poorly designed / unethical online advertisement implementations	Clinical Governance, Legal, Information
EBM Information Corruption	Online promotion content mixes with EBM database	Medical, Information,
Poor Information Management	Poor information integration due to proprietary information exchange protocols*	Information



## thank you

- Opportunity for creating an engaging/compelling environment
  - Value from 'tacit' interactions
- Many risks that require
  - careful mitigation strategies
  - Further analysis and solutions design

- Discussion/ Questions

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