LEADERSHIP IN RESEARCH
DRIVING INNOVATION IN CLINICAL PRACTICE
HOW DO WE MAKE RESEARCH REAL?

FIONA WOOD
Clinical practice is the art of problem solving
Solutions:

Literature
Observation
Experience
Hierarchy of Evidence

• Systematic review and meta-analysis
• Randomised controlled trials
• Cohort studies
• Case controlled studies
• Cross-sectional surveys
• Case reports

NH+MRC 2004
Rigorous literature searches

- Cochrane Central Register
- Medline (1966 – current)
- CINAHL (1982 – current)
- EMBASE (1988 – current)
- Hand search target journals
- Unpublished evidence
- Key words
Scientific knowledge is cumulative

Basic science – clinical science

Bias reporting by not reporting
First Aid

What?

Where?

When?

Rea SM, Kuthubutheen J, Fowler BV, Wood FM. Burn first Aid in Western Australia - do healthcare workers have the knowledge? Burns (in press).
Hills Criteria of Causation

Consistency
Strength
Specificity
Close response relationships
Temporal relationship
Biological plausibility
Coherence
Experiment

Change of Practice?

Knowledge Transfer?
“The art of medicine consists of the skilful application of scientific knowledge to a particular person for the maintenance of health or the amelioration of disease. For the individual physician the meeting place of the science of medicine and the art of medicine is the patient, but scientific knowledge is more readily taught, whereas the application of knowledge at the bedside is largely the function of the sagacity inherent in or personally developed by the individual physician”

Hippocrates, Revisited
Essay, Herman L. Blumgart 1973
Those who complain of practice that isn’t “scientifically proven” reveal a misunderstanding of the clinical task and a sharply limited comprehension of “ways of knowing”.

Ken Cox
Aust NZ J Surg 1995
Comparison of Indicator Results; Ashmore Reef patients and a 2008 matched patient group

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Thank You