



The University of Sydney



EBHC Teaching in the Pacific Rim: Australia

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Medical Schools in Australia

- 15 medical schools in Australia
 - Accredited by Australian Medical Council (AMC) www.amc.org.au
 - Accreditation standards include:
 - “The curriculum is based upon principles of scientific method and evidence-based practice and inculcates analytical and critical thinking”
 - Standards do not prescribe ‘how’ this should be achieved and this varies across schools
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Two 'audits' of Australian medical school EBHC teaching

EBHC Teachers Workshop (Brisbane, 2003)

- 6 of the 15 medical schools reported on EBHC curricula at the workshop

Bland JM. Teaching statistics to medical students using
problem-based learning: the Australian Experience

BMC Medical Education 2004; 4.31

- Sabbatical visit to eight medical schools (particularly focusing in integration of EBHC teaching in problem-based courses)
 - Three models found
 - A parallel course
 - PBL used only for public related subjects
 - Material integrated but separately taught
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Non-PBL medical schools and EBHC

Monash University

- 6 year undergraduate course
- Lectures on biostatistics and epidemiology in Years 1 & 2
- Four tutorials in Year 6 on critical appraisal arising from clinical scenario
- Assignment using Cochrane Library

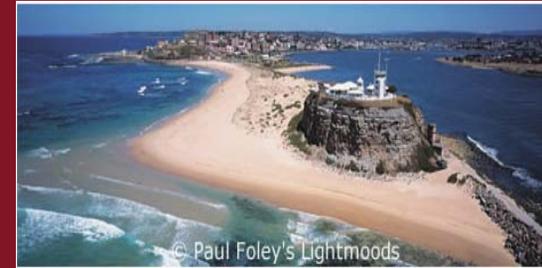




Parallel EBHC & PBL courses

University of Queensland
Flinders University
University of Newcastle
University of Adelaide

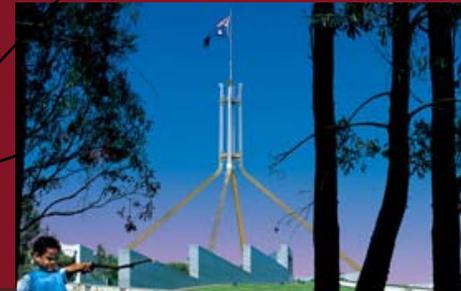
- Lectures, tutorials etc given separately from main PBL course but usually linked by examples from PBL case





Integrated but separately taught

University of Sydney
ANU (Canberra)
Bond (private, Qld)
Melbourne

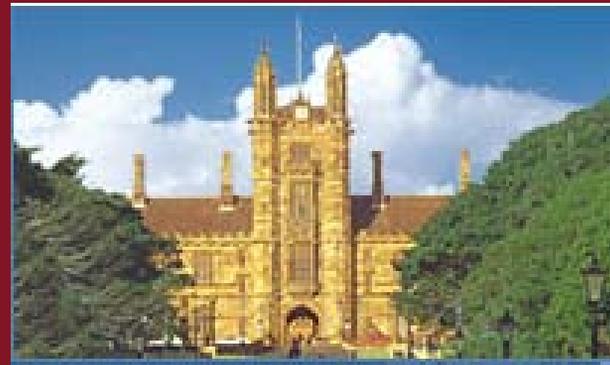
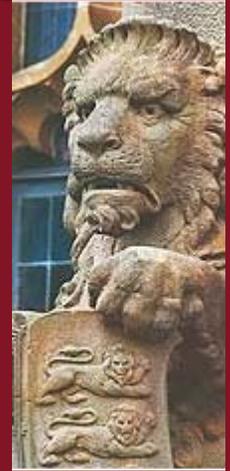




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University of Sydney Medical Program





| | | | | | |
|--------------|---------------------------------|------------------------------------|---------------------------------|------------------------|-----------------------|
| BCS | Stage 1 | Block 2 | | | |
| Pt-Dr | Block 1 | Drug & Alcohol/ Musculoskeletal | Block 3 Respiratory | Block 4 Haematology | Block 5 Cardiology |
| CDI | Foundation | | | | |
| PPD | | | | | |
| BCS | Stage 2 | Block 7 | | | |
| Pt-Dr | Block 6 | Gastroenterology & Endocrine | Block 8 Renal & Reproductive | Block 9 Cancer | |
| CDI | Neurosciences | | | | |
| PPD | | | | | |
| BCS | Stage 3 | | Stage 4 | | |
| Pt-Dr | Integrated Clinical Attachments | | Clinical Rotation | Elective | |
| CDI | | | | | |
| PPD | | | | | |
| BCS | | | | | |
| Pt-Dr | Clinical Rotation | Clinical Rotation | Clinical Rotation | Pre-Intern | |
| CDI | | | | | |
| PPD | | | | | |



Integrated AND separately taught

INTEGRATED

- Med 1 & 2
 - Online EBM activities
 - EBM questions within the reasoning guide
- Med 3
 - Clinical reasoning
- Med 4
 - Clinical reasoning

SEPARATELY TAUGHT

- Med 1 & 2
 - Nine additional tutorials (one per block)
- Med 3
 - PEARLS
- Med 4
 - Assignments



Integrated online activities (Med 1 & 2)



Curriculum Review

- YEARS 1 & 2
- YEAR 3
- YEAR 4
- ASSESSMENT
- ADMIN/FORMS
- RURAL
- LINKS
- COURSE INFO
- PEOPLE
- HELPDESK
- EVALUATION
- FEEDBACK

LEARNING TOPICS

P

101 - Mr Sarich's chest pain | Myocardial infarction

1 TRIGGER 1 TEXT
RESULTS | EBM ACTIVITY
PATIENT DATA

TIMETABLE
SUMMARY | CONTACTS | TUTOR GUIDE
ONLINE ASSESSMENT

[Mr Sarich's chest pain](#)

EBM ACTIVITY

Read the following clip from the Sydney Morning Herald*:

Sydney Morning Herald
Wednesday July 1st 1979

New Hope for Survivors of Heart Attacks

Scientists popped champagne and toasted the discovery of a new cardiac drug at the 'Heart Disease Research Centre' this week. "This new drug (encainide) gives fresh hope to sufferers of heart attacks," Professor Chris Taylor announced at the drug's launch yesterday afternoon.

Prof. Taylor went on to explain that survivors of heart attacks are at increased risk of a sudden death after a heart attack. "Scientists have been searching for a long time for ways to help the heart get back to a regular rhythm following the heart attack". Biological information indicates that encainide should provide effective antiarrhythmic therapy for heart attack sufferers.

"This is great news for survivors of heart attacks," Cheryl Pearson from the Heart Disease Consumers Association proclaimed. "We hope encainide will now reduce the risk of death during recovery from a heart attack."

Encainide is now available by prescription from cardiac surgeons and physicians.

**Please note: this is a fictitious newspaper clip.*

[Open Medline](#) and follow the step-by-step guide to find the first patient-focused trials of encainide published in the late 1980s.



Integrated clinical reasoning (Med 3)

YEAR 3 > Musculoskeletal Disorders > Clinical Reasoning Case:

Aching joints | Multisystem inflammatory disorder

Problem/ Differential Diagnosis (DD) +

History +

Problem Reformulation +

Examination +

Refinement of DD +

Investigations +

Working Diagnosis +

EBM +

Management

Progress

Discussion Points

Reference Material

Pharmacology LT

PRINT ALL

HELP

Questions EBM

- What are some relevant questions for which I would like more evidence from the literature in order to make decisions about diagnosis and management.

My Response

Are NSAIDs more effective than simple analgesics in the relief of pain in SLE?

Clinician's Response

- In women presenting with polyarthritis, is measuring serum ANA and dsDNA levels an accurate way of detecting or excluding SLE? (sensitivity, specificity, likelihood ratios)
- Are NSAIDs preferable to corticosteroids in treating SLE? (controlled trials of drug therapy in SLE)
- What obstetric risks exist if she does proceed with a pregnancy? How would you advise her?(maternal and fetal risks, genetic factors)
- Is a renal biopsy justified in this clinical setting?
- What are the current guidelines, if any, on management of SLE?



Integrated clinical reasoning (Med 4)

YEAR 4 > Child and Adolescent Health > Clinical Reasoning Case:

Patrick Hardy's problem

- Problem formulation & differential diagnosis
- History
- Problem reformulation
- Examination
- Problem reformulation
- Investigations
- Provisional diagnosis
- Management
- Disease prevention & health promotion
- Outcome
- Discussion points & learning topics
- References & websites
- EBM Task**
- Related Case
- PRINT ALL
- HELP

EBM TASK

4. **Finding, appraising and applying a systematic review OR guideline**

Each week, one or two students from each PBL group are assigned an EBM task. You need to find and appraise a guideline or systematic review which is relevant for the case. You will use this information in your management and also in developing an information package for your patient/patient's family.

Exemplar material: Croup

- ◊ [Searching the evidence](#)
- ◊ [Children's Hospital at Westmead management guidelines](#)
- ◊ [Critical review - clinical practice guidelines \(MS Word\)](#)
- ◊ [Parent information sheet](#)

EITHER: Find a systematic review:

1. Search the [Cochrane Database of Systematic Reviews](#) (University of Sydney Library OVID interface)
2. Search the NHS Centre for Reviews and Dissemination website:
 - ◊ <http://nhscrd.york.ac.uk>
3. Search MEDLINE
 - ◊ Combine the appropriate medical subject heading term (exploded) with the following "methodological filter"
 - ◊ (Review.pt AND medline.tw) OR meta analysis.pt
 - ◊ (NB .pt denotes publication type and .tw denotes text word)

How to appraise and apply a systematic review:

- ◊ JAMA Users' Guides Series. Oxman AD, Cook DJ, Guyatt GH for the Evidence-based Medicine Working Group. How to use an overview. JAMA 1994; 272: 1367-1371.



Separate EBHC teaching

- Med 1 & 2
 - Nine tutorials (one per block)
 - Users Guide Series
 - Example – Diagnostic tests appraises hypothroid index and thyroid function test in week of thyrotoxicosis case
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Separate EBHC activity PEARLS

ICA – A Guide to Student PEARLS

Year 3

- PBL Cases
- BCS Lectures
- Community & Doctor
- Patient & Doctor
- Personal & Professional Development

ASSESSMENT

ADMIN/FORMS

RURAL

SEARCH

LINKS

COURSE INFO

PEOPLE

HELPDESK

FEEDBACK

| |
|--|
| <i>Presentations of Evidence Abstracted from the Research Literature for the Solution of Real Individuals' Clinical Problems</i> |
| Background, specific objectives and methods |
| Example of a framework for presentation |
| References and resources |
| Key points for students and tutors |
| Notes for students |
| Hierarchy of evidence regarding treatments |
| PEARLS Assessment Form (in Word 6.0 format) |
| PEARLS Audience Feedback Form (in RTF) |
| PEARLS Outline, rules and requirements |
| Invitation for content person (in RTF) |
| Summary of a PEARLS about treatment (handout) |
| Example of visual aids (PowerPoint Presentation on Hyperthyroidism) |
| Example of visual aids (PowerPoint Presentation on the Power of Prayer) |
| Writing your short reflective report |
| Spreadsheet for summarising your audience's feedback |
| For further information, contact Dr Martin Stockler |