School of Medicine

**Graduate Entry student guide**

2012 - 2013

Foundations of Clinical Practice Theme:

Problem Based Learning

Part 2



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***Disclaimer***

It should be noted that, although every effort has been made to ensure that the information in this document is correct at the time of going to press, information may be subject to change. You will be informed of any changes that affect the curriculum or your progress through the course.

**Description: guardian.co.uk home**

**Case 4: The no-blame game**..... it is wrong to blame immigrants for the capital's public health crisis, says Evelyn Harvey <http://www.guardian.co.uk/society/2008/jan/28/tb.london>

**Cellular and Molecular Science Theme**

**Original author of ‘A fading rose’ Dr. Ivor Brown**

**Revised by Dr. E. David McIntosh** [e.mcintosh@imperial.ac.uk](mailto:e.mcintosh@imperial.ac.uk) **and Dr. Saranya Sridhar,** [**s.sridhar@imperial.ac.uk**](mailto:s.sridhar@imperial.ac.uk)**, National Lung and Heart Institute, Wright Fleming wing, St. Mary’s hospital**

**Setting** General Practice and Medical Outpatients

**Abstract**

You are observing in the medical outpatients of St. Mary’s hospital. A 22-year-old female asylum seeker, Gail Mutola, has been referred by the GP asylum doctor. Miss Mutola presented to the GP with a persistent cough, fever and a 7kg weight loss over the past two months. She had previously been in good health but had spent some time in crowded conditions in refugee camps where there was often not enough food. She is meant to use a lot of creams for her eczema, but these are expensive. She does not smoke and denied haemoptysis or chest pain. Recently she had been waking up at 2 or 3 am drenched with sweat. Physical examination was unrevealing, but a chest radiograph showed a shadow in the upper lobe of the left lung. The consultant comments that during her working life in the UK this sort of presentation was rare in comparison with world-wide, until recently.

Apply the PBL process to the case up to this point- follow the ‘steps’.

**Supplementary information to be provided by tutor** *Discuss*

*Then continue.*

Miss Mutola speaks little English. Her interpreter reports that Miss Mutola is frightened of the coloured medicines that her uncle was made to take when he was ill in the same way. She is also very worried about how much the medicines would cost her and about the implications for her asylum status.

**Aims**

The aim of this problem is for students to learn about a global health problem and the implications for the health services of countries which are the destination of those with infection, based on the critical appraisal of given sources of information.

We want to encourage you to apply the tools you have learnt in the *Evidence in Practice and PBL courses* to do rapid but accurate appraisals of any source.

***Instructions for students***

Once you have agreed your learning objectives for the whole case, allocate the following sources and tasks amongst your peers. You should appraise these sources in a critical way.

**Critical appraisal 1:**

Clark RC, Mytton J. Estimating infectious disease in UK asylum seekers and refugees: a systematic review of prevalence studies. J Public Health 2007; 29: 420-428. Pubmed: <http://www.ncbi.nlm.nih.gov/pubmed/17923473>

Discuss the pros and cons of improving ascertainment, diagnosis, surveillance and treatment for infectious diseases in UK asylum seekers and refugees.

You should also make reference to Pareek *et al*. The Lancet Infectious Diseases 2011; 11: 435-444. This is an article about screening of immigrants in the UK; it is a multicentre cohort study and cost-effectiveness analysis. <http://www.thelancet.com/journals/laninf/article/PIIS1473-3099(11)70069-X/abstract>

Discuss the sensitivity/specificity of the interferon-γ release-assay (IGRA).

Critically evaluate the conclusion of the Pareek *et al*. study: “Screening for latent infection can be implemented cost-effectively at a level of incidence that identifies most immigrants with X thereby preventing substantial numbers of future cases of X”. See also:

<http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news_27-4-2011-10-47-14>

**Optional critical appraisal 1**:

Patradoon-Ho PS, Ambler RW. Universal post-arrival screening for child refugees in Australia: Isn’t it time? Journal of Paediatrics and Child Health 2012; 48: 99-102.

*If time allows*, perform a critical appraisal of this case: a child refugee with a serious, life-threatening infection, *or another selected case of your choice*. The child in the J Paed and Child Health article presented with a suspicious cough, but did not receive adequate treatment until 16 days after presentation; on Day 19 the child experienced severe neurological deterioration with poor outcome. The case (*or the selected case of your choice*) should draw attention to how single case reports can be used (and are used) to drive changes in policy.

**Critical appraisal 2:**

Pitman A. Medicolegal reports in asylum applications: a framework for addressing the practical and ethical challenges. Journal of the Royal Society of Medicine 2010; 103: 93-97. <http://jrsm.rsmjournals.com/cgi/content/full/103/3/93>

You are asked to draft a medicolegal report, in support of her asylum application, on behalf of your consultant about Gail Mutola, a 22-year-old female asylum seeker. How would you frame that report?

**Critical appraisal 3:**

Winje BA, Oftung F, Korsvold GE, Mannsåker, Ly IN, Harstad I, Dyrhol-Riise AM, Heldal E. School based screening. BMC Infectious Diseases 2008; 8: 140. <http://www.biomedcentral.com/1471-2334/8/140>

Miss Mutola’s two younger sisters (who are 14 and 15 years old) have been attending a local school. A decision has been made to screen all children and staff at the school for infection. Assess the pros and cons of the tests.

**Critical appraisal 4:**

Gleadow Ware SH. Treating failed asylum seekers. Stick to our ethical principles. BMJ 2009 (letter published 1st June); 338: b2192. <http://www.bmj.com/cgi/content/full/338/jun01_1/b2192?maxtoshow=&hits=10&RESULTFORMAT=1&author1=Gleadow+Ware%2C+SH&andorexacttitle=and&andorexacttitleabs=and&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=date&fdate=1/1/1981&resourcetype=HWCIT>

You are Miss Mutola’s GP and you have received a letter from the medical outpatients of the teaching hospital. It states that Miss Mutola has been diagnosed and started on therapy. It also states that children and staff at the school which her younger sisters attend are going to be screened. But the letter is somewhat ambiguous regarding Miss Mutola’s eligibility for free therapy and nutritional support. So you decide to write a letter to the British Medical Journal somewhat similar to the Gleadow Ware letter (above). What are some of the ethical principles involved here and should you take it upon yourself to provide her with free therapy and medical support?

**Critical appraisal 5**

What are your opinions and critique of the headline article in The Guardian?

**Guidance**

This case offers you another opportunity to ‘sharpen up’ your search skills.

Please contact the Library staff if you are not confident at using OLIVIA- it is expected that you will be skilled at searching for, and appraisal of, information by this stage in your career.

However, you will need to adapt the skills from your previous degree studies- during a medical career you will have to appraise sources of information **rapidly**.

Presenting critical appraisal findings to tutors and peers- refer to your Evidence in Practice Course Guide and lectures.

Over the years students have said that they struggle to apply this skill that they learnt about in the Evidence in Practice Course. However, since we introduced the application of this skill to PBL cases students have become more confident.

**Presenting critical appraisal findings to tutors and peers**

You will need to adapt the following if your source is from the media and not a research paper.

Summarise paper first: with a sentence for each of the following:

* Who did the study?
* Why did they do it?
* What did they do?
* What did they find?
* What did they conclude?
* Where was the study reported/ published?
* Was it peer reviewed?
* Then consider the following:
  + 1. Question
  + 2. Design
  + 3. Population
  + 4. Methods
  + 5. Analysis
  + 6. Confounding
  + 7. Bias
  + 8. Ethics
  + 9. Interpretation

+ for the purposes of PBL

* + 10. Your overall judgment about the paper or source

**Links with other parts of the course**

* Microbiology, immunology and pathology sessions in Cellular and Molecular Science Course, Year 1 Evidence in Practice Year 1
* Medical Ethics Year 3

**Case 5: Potting the skunk**

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**Life Cycle & Regulatory System Theme**

**Aim**

To revise a number of topics covered within the curriculum through studying the case of a patient presenting in the emergency department using the method of PBL in the clinical setting.

**Read and refer to** Appendix, A model of clinical PBL for clinical attachments in medicine.

**Setting Accident and Emergency Department, Northwick Park hospital**

**Abstract**

**Report of a Year 3 medical student’s clinical PBL case in Emergency medicine**

**Roles**

**One person to be the student and others the students on the clinical attachment.**

**You may like to invite your Tutor to play the part of the clinician.**

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Yesterday was the first day in emergency medicine during my attachment at Northwick Park. Since I had been designated as lead student for our first clinical PBL session, it was my job to clerk the patient. These were my notes that were relayed to my group to consider in the first part of the PBL case discussion. The patient was undoubtedly the most challenging person that I was involved with in A and E.

Presentation

A and E, young male brought to the emergency ward by the police. He had been picked up for playing truant from school.

The police told us that they were concerned that this individual was not particularly responsive to questioning.

The nurse had already done his observations and sent off blood tests.

History

I did not gather much information whilst trying to take a history, but did ascertain that his name was Sin and that he was 17 years old

He said that he hadn’t done anything wrong and, in his words, he simply had some ‘behavioural issues’.

He refused to give his full name

Observations:

Sleepy but easily roused

Teeth discoloured

Reddening of conjunctivae

Pulse 100/minute, BP 142/90, aural temperature 36.8 C

Management

The nurse placed Sin in a quiet room with half hourly obs.

The F2 came to assess him. On examination a bus pass dropped out of a pocket. This had his name, Sin Simella.

I was tasked with checking his details on the database. The F2 then rang and left a message for his GP who called back very promptly.

The GP said that Sin had been in and out of care for most of his life. He had conduct disorder and been managed for this over the last 7 years. The GP was pretty sure that he had started abusing some sort of drugs, at least 3 years ago. The last time she had seen him there were definite signs of a short term memory deficit.

The F2 instructed me to take a urine sample for drug levels and check what had been requested for the blood tests, in case more were needed. Sin agreed, I think, but said I had to wait a bit until he felt better and that he wanted a jug of water.

*Later, the F2 started to quiz me about the presentation and what it all meant. He asked about the role of the hippocampus! When I could not recall anything he suggested I might get the help of my PBL group and ask you if you remember anything about ‘encoding’ and registration’. I’ve got to report back to him.*

**Share your experiences of being in an A and E department. Then discuss your initial thoughts regarding the presentation.**

**Then consider:**

**What drugs do the presentation suggest this patient has taken?**

**Is the patient intoxicated and if so, what is the level of his intoxication?**

**Will the blood or urine tests help to judge the level of intoxication?**

**Explain the patient’s request to drink water before his tests?**

**What is known about behavioural disorders?**

**What is known about conduct disorder?**

**How are these ‘disorders’ managed?**

**What associations are there between drug abuse and memory problems?**

**Describe mechanisms that may induce memory deficit?**

**What do the terms used by the F2 mean?**

**What other issues does this case raise?**

Question one another, discuss and debate.

Then agree your learning objectives

**Subjects Covered:**

Pharmacology & Therapeutics – Drugs of Abuse

Neuroscience – Memory

Human Life Cycle – Conduct disorder

Ethics Year 2 Law Year 3 - Consent

# Appendix E – Outline of PBL Learning Structure for medical and surgical attachments

**From; *Macallan et al., (2009). A model of clinical problem-based learning for clinical attachments in medicine. Medical Education, 43(8), pp799-807***

Table 1 Outline of clinical problem-based learning structure for medical and surgical attachments

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| |  |  |  |  | | --- | --- | --- | --- | | **Session** | **Tutor** | **Student/group** | **Key questions/issues** | |  | | | | | Beforehand | Allocate case and designate lead student | Lead student clerks patient |  | |  |  |  | | Allocate scribe to annotate discussion (whiteboard/flip-chart) | Lead student brings appropriate investigations (bloods, X-rays, electrocardiogram, etc.) to session |  | | Tutorial 1 | *Tutor acts primarily as facilitator* | | | |  |  |  | | Presentation | Lead student: one-line summary of presentation, then stops |  | |  |  |  | | Hypothesis generation | Group brainstorm to develop hypotheses to explain presentation | What might be going on here? | |  |  |  | | Develop the focus of history acquisition | Group discussion to relate hypotheses to history | How do these different conditions present? What are the important things we need to know about the patient? | |  |  |  | | Detailed history | Either, lead student plays the role of the patient, other students take history from him or her, or lead student presents history in the third person |  | |  |  |  | | Identify learning issues | Students collectively agree on what they need to research before the next tutorial | What do we need to understand to approach this case effectively? | |  |  |  | | Focus on clinical signs | Relate examination to hypotheses and history Lead student presents examination findings by answering questions raised by the other students | What should we look for on examination? | |  |  |  | | Review hypotheses | Group discussion | What do examination findings tell us? | |  |  |  | | Focus on mechanisms | Group discusses likely pathology and underlying aetiology | What disease states or processes are involved? | |  |  |  | | Finalise learning objectives | Group agreement | All objectives are for all students | |  |  |  | | Review at bedside | The whole group visits the patient on the ward Review history Demonstrate clinical signs |  | | Learning interval |  | Students use textbook, online and staff resources to answer learning objectives | Lead student follows case daily, referring to notes and further investigations | | Tutorial 2 | *Tutor switches from facilitator to expert role* | | | |  |  |  | | Summarise case; set agenda | Group members review what they have found out about their learning objectives | Patient-focused: what have you learned that specifically applies to this case? | |  |  |  | | Case progress; explain decision making | Review investigations, management, progress | What management decisions were made and why? | |  |  |  | | Revisit patient at bedside | Demonstrate key issues discussed | Expert discussion of clinical management and reasoning | |  | Summarise learning Identify outstanding issues and any further learning objectives | Tutor leads discussion and ensures students have covered all appropriate aspects |  | | Write-up | Case report | Lead student produces case report Report is distributed to whole group | Part of summative assessment | |
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