

Continuing Professional Development: e-Learning in Primary Care

Professor Yvonne Carter
Hong Kong, March 2003

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Continuing Professional Development

- Personal Development Plan
- Practice Professional Development Plan
- Portfolio of evidence of learning
- Contribution to appraisal and revalidation processes

Definition of e-Learning

The delivery of learning via any form of electronic media including online learning.

Snook A. Online learning - the eye of the storm. 2000
www.e-learningzone.co.uk/feature6.htm

Definition of e-Learning

e-learning is the effective learning process created by combining digitally delivered content with (learning) support and services

Waller V and Wilson J. A definition of e-learning. October 2001
Newsletter. Open Distance Learning Quality Council: London

www.odlqc.org.uk

The Delivery System

- Stand alone PC with CD-Rom or DVD
- Internet and world wide web
- Intranets
- Interactive TV and PC
- Handheld devices, such as portable digital assistants
- Mobile phones with WAP

Definition of Primary Care

Primary care is first contact, continuous, comprehensive and co-ordinated care for individuals and populations undifferentiated by age, gender, disease or organ system.

Starfield B. Is primary care essential? *Lancet* 1994; 344: 1129-33

Background

- Growth in access to Internet by healthcare professionals globally
- All general practices in UK connected to NHSnet by 2003
- NHS Information strategy published June 2002
- Wanless Report calls for IT spending to be doubled from £1.1bn to £2.7bn in 5 years

The Theoretical Debate

- How to produce educational materials and manage educational processes using new technologies?
- Is learning enhanced in comparison with traditional methodologies?
- How best to utilise the potential for learners of new kinds of learning networks?

Jamieson A and Rennison T. In: Carter Y and Jackson N, 2002

Anxiety about Isolation

A lot of the benefits of (educational) meetings are meetings with colleagues, mulling over a problem together.

Sometimes when you get a difficult problem in the surgery, to be able to go and chew it over with someone... you get a feel for a problem much better when you can talk to someone directly. There's worry that that type of education will go. It's about getting a feel for the problem with face to face interaction you won't get on screen.

Pinder R. unpublished report, 2000

Anxiety about Isolation

- *Education in general practice is sharing and social. We're already isolated in general practice. You can go to a lunchtime meeting with a sandwich and a cup of coffee. You might not come away with much information, but it's sharing and supportive. The computer doesn't give you a sandwich and a cup of coffee! I don't see myself going through the CD-Rom model, sitting at home in front of a CD-Rom.*

Pinder R. unpublished report, 2000

Added Benefits to the Learner

All that has happened so far has been the translation into hypermedia of the pedagogic approaches of a previous era.

Noss R and Pachler N. In Mortimore P (ed), 1999

Criteria for Aiding Learning

- Discursive (at the level of conceptions)
- Adaptive (by the teacher)
- Interactive (at the level of actions)
- Reflective (linking feedback to actions)

Laurillard D, 1993

CPD in the Clinical Environment

- use related to the practice clinical system: patient registration, registration links, medical history, consultations, templates/protocols, referrals, prescribing, clinical links, audit and searching, knowledge systems such as PRODIGY
- uses related to standard business software: word processing, spreadsheets, e-mail, Internet, Intranets;
- other clinical uses: NHSNet (information, electronic textbooks, distance learning, e-mail)

Motivating Factors in the Use of Practice Clinical Systems

- personal
- related to needs of the practice
- reaction to external requirements eg. clinical governance

The Use of Knowledge Systems

- Drug interaction and contraindication systems
 - data-based systems able to interact with the electronic clinical record and “prompt” the clinician
- PRODIGY
 - guidance triggered by the entry of a particular Read Code

Use of IM&T in Audit

- Storing of comprehensive data sets
- Facilitated by the supply or construction of templates/protocols relevant to a particular clinical situation
- Opportunity to aggregate and compare data across a PCT or Strategic health authority

Clinical Effectiveness Group

- The Clinical Effectiveness Group – based in Department of General Practice & Primary Care
- Supports general practice in improving quality of care through in-practice facilitation
- Has a clinical remit for cardiovascular disease and mental health
- Integrates clinical guidelines with audit and feedback
- Utilises electronic data extraction for audit: Sharing Quality in Data (SQuiD)
- Across east London 78% (112) of practices who participated in audit did so through electronic audit
- This covered 737,701 registered patients

Sharing Quality in Data

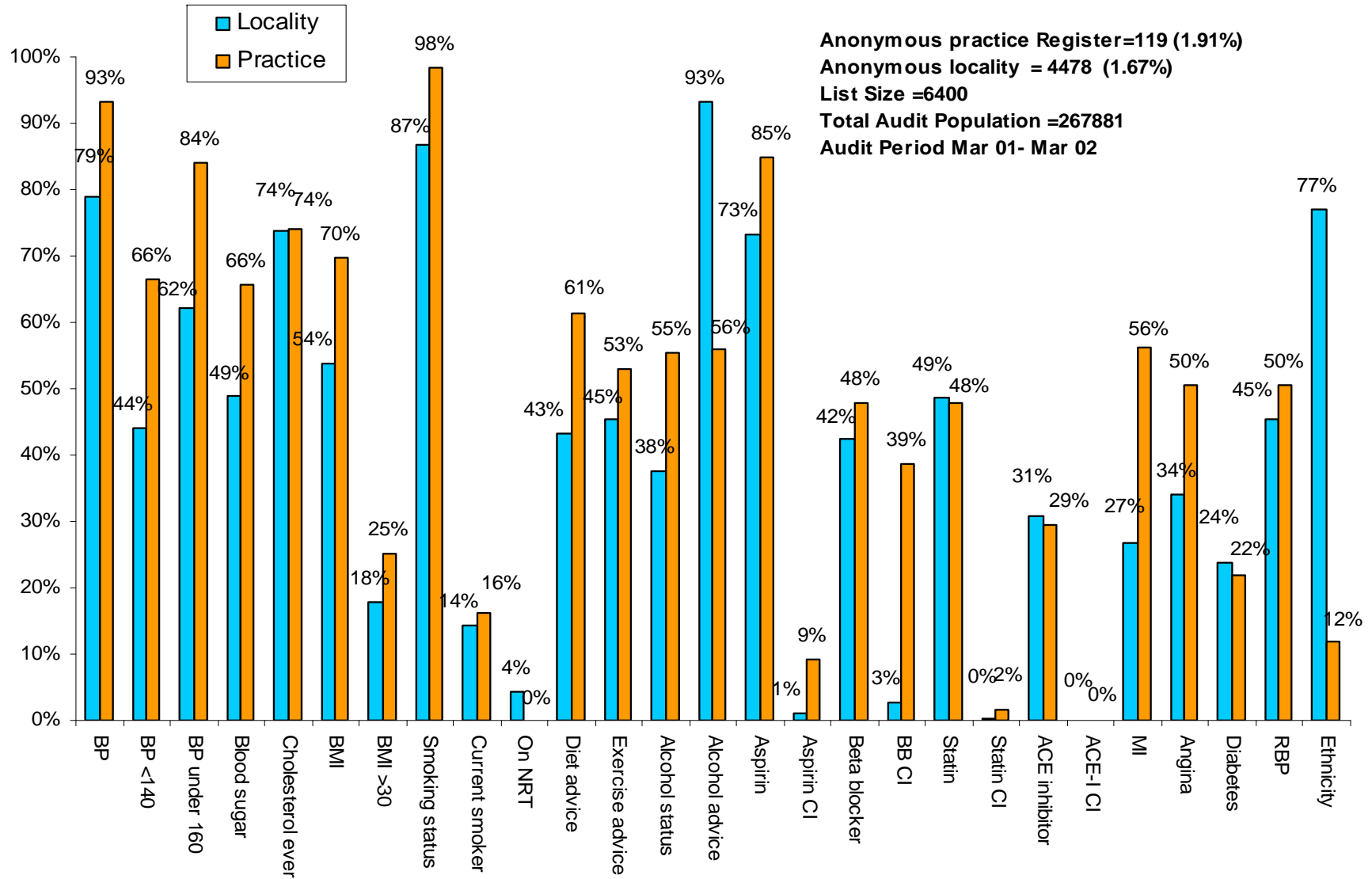
Pan east London project facilitating improved quality and use of primary care clinical information

- Develop & promote use of computerised disease registers
- Establish common data sets
- Collect & collate data from those registers using MIQUEST
- Feedback results to practices
- Support practices in implementing change
- Participate in NHS information Authority national Primis programme

What is MIQUEST?

- **Morbidity Information Query Export Syntax**
- Writes searches in health query language (HQL)
- Searches on: Read codes, British National Formulary headings and system-generated codes
- Cannot extract patient identifiable data
- Requires each clinical system to have an interpreter
- This is a requirement for accreditation (RFA 99) for clinical system vendors

Anonymous Practice CHD 2002



Changing Practice

- Link audit results to clinical rationale
- Stress the importance of recording diagnosis accurately
- Discuss the value of primary/secondary care data sharing and disease registers
- Demonstrate ways of saving time (and making money!)

MENTOR

- Developed and evolved last 10 years
- EMIS practice clinical system in 5,000 sites, 53% practices in England
- Used regularly by GPs, practice nurses, GP registrars
- “First pass” reference during consultation
- Ability to print log of activity

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Yes

No

Lyme Disease - Mentor Library

File Edit View Go Configuration Help

Medical topic links Drugs See Also PILS Links

Incidence Presentation Tests Treatment References:

Lyme Disease

This was first described in 1977 while investigating an outbreak of arthritis in Lyme, Connecticut, USA. It is caused by a tick-borne spirochaete, *Borrelia burgdorferi* (and others). In the UK, the tick is found most often in rural and forest areas in South and West England, Thetford Forest, Northern England and Scottish Highlands. British residents can also, of course, catch the disease while abroad, such as in USA & Northern Europe.

► Do not make the mistake of thinking that because the patient has not been to the New Forest or rural USA it cannot be Lyme disease.¹

Incidence Rates of *B burgdorferi* infection in ticks is variable, even in nearby areas, and a bite from an infected tick may not cause infection. Risk of infection is greater if the tick is attached for >24 hours. Serious infection is rare (44 cases, UK 1993). Seroprevalence in New Forest workers of 20yrs standing was 25% (4% in local non-foresters). Most infections are asymptomatic.

Organisms

- Species of borrelia: *Borrelia burgdorferi*, *Borrelia garinii*, *Borrelia afzelii*, *Borrelia japonica*, *Borrelia andersoni*
- Species of tick: *Ixodes persulcatus* (European tick), *Ixodes scapularis*, *Ixodes pacificus*, *Ixodes ricinus* (European tick)

Think of the ticks as if they were Darwin's finches on the Galapagos Islands. Each locality has its own distribution of ticks, and, therefore, of borrelia - but with the retreat of the ice age, and the arrival of transhemispheric birds & jets, populations become less heterogeneous, and the balancing forces of host-pathogen-man co-evolution are upset - with the result that Lyme disease is now becoming global & mixed infections are becoming recognised.¹ NB: by co-evolution we mean two representatives of a species, isolated in space, evolving without genetic mixing in the light of a mutual genome, but yielding different results attributable to the differences of the environment.

Presentation

Initially: Erythema chronicum migrans radiating from bite, within 2 - 40days (easily missed), pyrexia, local lymphadenopathy. ►
The key question is: "Do you remember being bitten by an insect?"

The disseminated stage occurs weeks to months later, with flu-like illness, oligoarthritis (60%); myalgia, multiple erythema chronicum migrans, sometimes systemic upset. CNS disorders (15%) - facial (and other cranial nerve) palsies, meningism, mild

Mentor\Infectious Diseases\Lyme Disease

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UK Lyme Support Group - Mentor Library

File Edit View Go Configuration Help

Medical topic links Mentor Links See Also

UK Lyme Support Group

Web: www.egroups.com/list/lymearduk

The UK Lyme Support Group is a web-based facility to bring together those with knowledge of, experience of, or difficulties with Lyme Disease and related disorders with the following objectives.

- To promote awareness of tick-borne infectious diseases.
- To provide a forum to obtain help for sufferers or those who suspect they might be infected.
- To promote progress in diagnosis, treatment and rehabilitation for those affected.

Those with a positive and serious contribution to make are welcome to make contact through the site.

Checked July 2001.

This document :emistp://pils.doc.s1688
Edited by : Mentor System

Patient Information Leaflets\Patient Support\Infections (not AIDS or STD)\UK Lyme Support Group

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Primary HIV Infection - Mentor Library

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Medical topic links
Differential...
Drugs
Investigations
See Also
Management
References...
Internet

Primary HIV Infection

Synonym: Acute retroviral syndrome; seroconversion illness

► Primary HIV infection should always be considered in patients presenting with febrile illnesses resembling glandular fever or other nonspecific viral syndromes.

This occurs in 80% to 90% of patients following infection with [HIV](#).¹ A 'glandular fever' type illness occurs 2-4 weeks after exposure (rarely several months), symptoms are often very non-specific, and not all patients consult a doctor, so the diagnosis is often missed.

Symptoms of Primary HIV Infection²

- Fever
- Lethargy
- Headaches
- Retro-orbital pain
- Lymphadenopathy
- Pharyngitis
- Diarrhoea
- Nausea and vomiting
- Erythematous maculopapular rash
- Oropharyngeal and/or anogenital ulceration
- Myalgia, neuralgia or arthralgia
- Meningitis
- Neuropathy (eg facial nerve palsy or peripheral neuropathy)
- Myelopathy and/or encephalopathy
- Guillain-Barré syndrome
- GI bleeds

Differential Diagnosis Other viral infections (eg. EBV, CMV, rubella, herpes simplex, hepatitis B/C or adenovirus); toxoplasmosis, bacterial (eg. streptococcal pharyngitis, syphilis, brucellosis), or neoplastic (lymphoma or leukaemia).

Investigations FBC, Paul-Bunnell, VDRL, Serology (HIV, CMV, Toxoplasmosis, Rubella, Adenovirus, Brucellosis etc). FBC may show lymphopenia followed by lymphocytosis, and atypical lymphocytes may be seen. There is usually a transient ↓ CD4+ count (although baseline not usually known). This may be severe enough to place patient at risk of opportunistic infections (eg *Pneumocystis carinii* pneumonia).

Mentor\Infectious Diseases\Primary HIV Infection

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Primary HIV Infection - Mentor Library

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Medical topic links Drugs See Also

Differential... Investigations Management References... Internet

Management It is critical that the primary care or casualty officer considers primary HIV infection when appropriate and performs the necessary investigations to confirm the diagnosis as there is evidence that early intervention with [anti-retroviral therapy](#) may prevent the decline in CD4 cell count, and prolong a patient's disease free period and life expectancy.^{4,5} In addition, such patients are highly infectious because of high viraemia so that identifying, educating and counselling patients at this stage should reduce transmission rates. Finally, patients who are diagnosed during the acute retroviral syndrome can be tested for acquired drug resistance of the infecting viral strain using genotype or phenotype assays (rather than that of the wild-type virus detectable at a later stage). The results of such early resistance assays may be useful in guiding therapy, even if treatment is deferred for years.

Current USA guidelines suggest all patients identified during the acute HIV infection should be considered for combination [anti-retroviral therapy](#), and those patients in whom seroconversion has been documented to have occurred within the previous six months.⁶

After seroconversion, HIV antibodies can be detected in the blood, but viral levels fall to very low levels (although viral replication slows rather than stops). CD4 and CD8 lymphocyte counts are normal and the patient remains well until HIV infection becomes symptomatic, sometimes years later (see [stages of HIV infection](#)).

References, footnotes and further reading

1. [Tindall B, Barker S, Donovan B, Barnes T, Roberts J, Kronenberg C, et al](#). Characterization of the acute clinical illness associated with human immunodeficiency virus infection. *Arch Intern Med* 1988; **148**:945-9.
2. [Jolles S, Kinloch de Loes S, Johnson MA, Janossy G](#). Primary HIV-1 infection: a new medical emergency? *BMJ*. 1996 May 18; **312**:1243-4. [\[Full Text\]](#)
3. Adler MW (Ed); ABC of AIDS 4th Ed (1997) BMJ Publishing Group ISBN 0-7279-1137-6
4. [Kinloch-de Loes S, Hirschel BJ, Hoen B, et al](#). A controlled trial of [zidovudine](#) in primary human immunodeficiency virus infection. *N Engl J Med* 1995; **333**:408-13. [\[NEJM\]](#)
5. [Ho DD](#) Time to hit HIV, early and hard. *N Engl J Med* 1995 Aug 17; **333**(7):450-1 [\[NEJM\]](#) and [subsequent correspondence](#)
6. Adult and adolescent HIV therapy guidelines (USA) available online from [www.hivatis.org](#)

Internet

- [UK PHLS HIV Data](#)
- [The AIDS Knowledge Base](#) A textbook on HIV disease from the University of California, San Francisco and San Francisco General Hospital
- [The HIV/AIDS Treatment Information Service \(ATIS\) \(US\)](#)

Mentor\Infectious Diseases\Primary HIV Infection

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Primary HIV Infection - Mentor Library

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Medical topic links: [Differential...](#) [Investigations](#) [See Also](#) [Management](#) [References...](#) [Internet](#)

NCBI PubMed National Library of Medicine NLM

Search PubMed for [] Go Clear

Limits Preview/Index History Clipboard Details

Display Citation Sort Save Text Clip Add Order

1: Arch Intern Med 1988 Apr;148(4):945-9 [Related Articles, Books, LinkOut](#)

Characterization of the acute clinical illness associated with human immunodeficiency virus infection.

Tindall B, Barker S, Donovan B, Barnes T, Roberts J, Kronenberg C, Gold J, Penny R, Cooper D.

Centre of Immunology, St Vincent's Hospital, Sydney, Australia.

The clinical and serologic features and immune status of 39 homosexual men who had seroconversion to human immunodeficiency virus positivity were compared with 26 homosexual men who remained seronegative during a six-month period. An acute clinical illness occurred in 92.3% of seroconverted subjects and 40% of controls. The duration of illness was significantly greater in the seroconverters than the controls (10 + 4.4 days). A general practitioner was consulted by 87.2% of the seroconverters because of the illness, including 12.8% who were admitted to hospital, compared with 20% of controls. The most frequently reported symptoms in the seroconversion group were fever (76.9%); lethargy and malaise (66.7%); anorexia, sore throat, and myalgias (56.4% each); headaches and arthralgias (48.7% each); weight loss (46.2%); swollen glands (43.5%); retro-orbital pain (38.5%); and dehydration and nausea (30.8% each). Lymphadenopathy developed in 75% of seroconverters compared with 4% of controls. Changes in T-cell subsets were not found in controls.

Mentor\Infectious Diseases\Primary HIV Infection

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DISEASE FACTS

HIV & AIDS Report Section & Unlinked Anonymous Prevalence Monitoring Programme

SURVEILLANCE

Objectives

Data sources

EPIDEMIOLOGY

Sex between men

Sex between men & women

Injecting drug use


Mother to child

 Blood/blood products

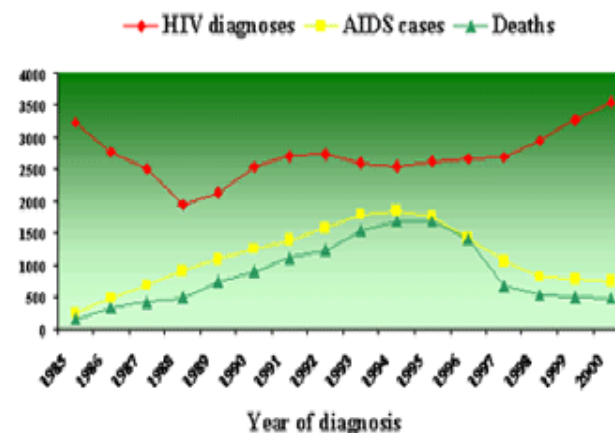
CURRENT DATA

 Quarterly surveillance tables

Survey of Prevalent diagnosed HIV Infection & CD4 survey

 [Unlinked Anonymous Prevalence Monitoring Programme](#)

Numbers of new HIV and AIDS diagnoses and deaths in HIV infected individuals by year of diagnosis/occurrence: UK data



GENERAL INFORMATION HIV/AIDS

NeLH-PC Overview:

- Background and History
 - “Information centred” Knowledge Management
 - part of NHS Information Strategy
- Current status of program
- Usage
 - now over 700K hits per month + rising
- Old and new interface
- Opportunities for collaboration
- www.nelh-pc.nhs.uk
- Authorship - Primary Care Informatics - SGHMS

Why a NeLH?

In relation to the professional knowledge base, NHS professionals cannot possibly retain in their heads all current and emerging knowledge about the work they do.

Healthcare is an international business and the knowledge base constantly changes and grows.

Information for Health

Part of NHS strategy

Specialised web sites - Virtual Branch Libraries - will focus on mental health, cancer and primary care.

Building the Information Core

The public and NHS staff will be able to access information on local care services and how best to use them through nhs.uk and evidence-based information and clinical guidelines through the National electronic Library for Health (NeLH).

The NHS Plan

NeLH-PC technical features

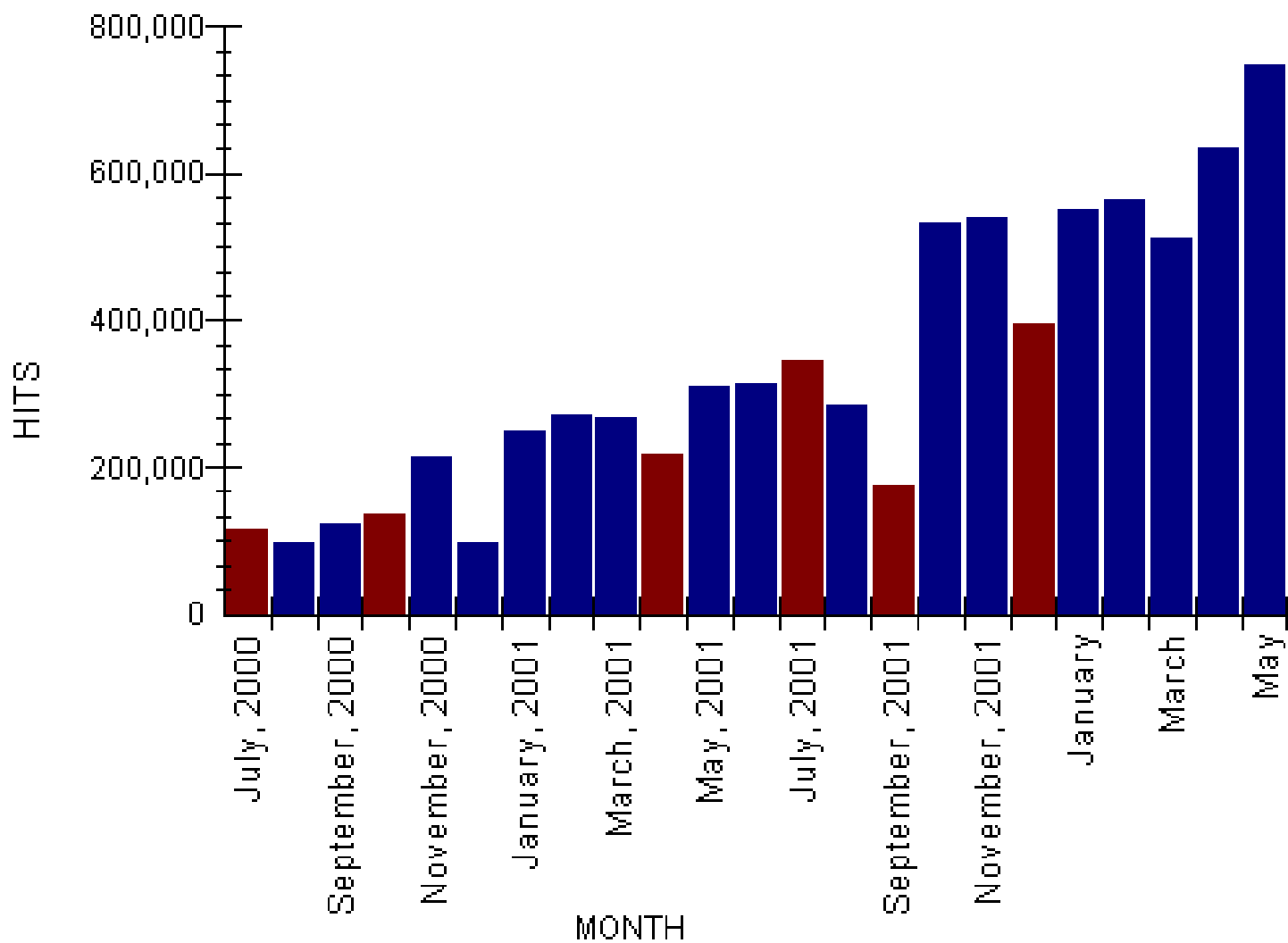
- Signposts to key papers + modernisation agenda
 - *Produced daily*
- Personalisation - “*My NeLH-PC*”
- Searchable electronic index - *Metadata*
- Special EBM search engine
 - Three tier searching – Guidelines, Summary of EBM, Medline clinical queries
- Flat hierarchical structure
 - Moving from GUI to flexible database driven interface
- Appropriate re-authoring

Information-centred KM

Two types of knowledge management

- Information centred –
 - Concentrates on dissemination of existing knowledge
 - EBM greatest weight in medicine
e.g. Sackett (1996,) Wyatt (2001,) Eccles (1996.)
- Learner centric –
 - Management aim is to accelerate learning
e.g. Senge (1992,) Takeuchi and Nonaka's (1995,) Kaplan + Norton (1996.)

NeLH-PC Usage



NeLH-PC usage (2)

- Usage end of morning, all afternoon
 - UK working hours
 - Tue, Wed, Thur busiest days
- “.nhs.uk” and “.ac.uk” largest users
- Over 750k hits May 2002
- Most used parts
 - Site index search (NeLH-PC Directory)
 - EBM Search
 - Personalisation
 - Cross Indexing

[References](#)[Journals](#)[Books](#)[Therapeutics](#)[Emergency](#)[News and Business](#)[Technology](#)[Educ. & Research](#)[Papers](#)

EBM Search

Go

[details](#)

Abstracts of new papers

[Cardiovascular risk for patients with type 2 diabetes: Teaching GPs skills in brief cognitive behaviour therapy:](#) [Do nurse practitioners provide equivalent care to doctors in primary care?:](#) [Blood tests for the detection of secondary osteoporosis](#)

[More ...](#)

Select a View

Home / Knowledge



Site Index

Search:

Go

[A to Z list](#)

NeLH-PC directory

► Knowledge

[Books](#), [Education and Research](#), [Emergency](#), [Journals](#), [News and Business](#), [Papers](#), [References](#), [Technology](#), [Therapeutics](#) ...

► People

[Chiropodists](#), [Clinical Professions](#), [Counsellors / Community Psychiatric Nurses](#), [General Practitioners](#), [Midwives / Health Visitors](#), [Nurses](#), [PCO Pharmacists](#), [People Finder](#), [Physiotherapists](#), [Practice Managers](#) ...

► Know How

[A to Z of Guidelines](#), [Cancer](#), [EBM Tools](#), [Governance](#), [Guidelines Database](#), [NSF](#), [Policy](#), [Project Management](#) ...

Search NeLH-PC directory

NeLH-PC has indexed over 600 web sites relevant to primary care. Use the search function below to search these sites.

Keyword search

The NeLH-PC directory has been indexed using MeSH terms. Select a term from the list below and the directory will be searched.

Alphabetical list of NeLH-PC directory entries

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

EBM search

[help»](#)

The EBM search returns guidelines and EBM articles. For guidelines the sources searched are [SIGN](#), [NICE](#), [PRODIGY](#) and [NeLH](#). For EBM articles the sources searched are [Clinical Evidence](#), [Bandolier](#), [Cochrane](#), [ACP Journal Club](#) and [Effectiveness Matters](#).

Abstracts of recent papers

[more»](#)

NeLH-PC has abstracted over 300 recent papers relevant to Primary Care. Choose a title below or search the collection.

- [Cardiovascular risk for patients with type 2 diabetes](#)
- [Teaching GPs skills in brief cognitive behaviour therapy](#)
- [Do nurse practitioners provide equivalent care to doctors in primary care?](#)

Modernisation agenda

[more»](#)

NeLH-PC has abstracted and presented a modernisation agenda relevant to Primary Care. Choose a title below or search the collection.

- [Clinical competency: a model for assessing and improving](#)
- [Obstacles to effective treatment for depression](#)
- [Depression and unintended pregnancy](#)

Accredited Professional Development

- RCGP quality award developed in partnership with the MDU
- Designed for all GPs in the UK
- Written by GPs for GPs
- System of accrediting the CPD of GPs based on peer review
- Website subscription option and CD-ROM

The APD programme – what is it?

- Six modules over 5 years:
- Keeping up to date – ongoing
- Communication skills
- Medical record keeping
- Access and teamworking
- Referrals and prescribing
- Complaints and removals

The APD pathway to revalidation.

Create your APD portfolio



Arrange regular review of evidence

(annual peer review by your APD Facilitator)



Assess evidence collated over a five-year cycle

(by your APD Facilitator and the RCGP quality assurance process)



Submit your APD portfolio for revalidation as appropriate



5-yearly assessment

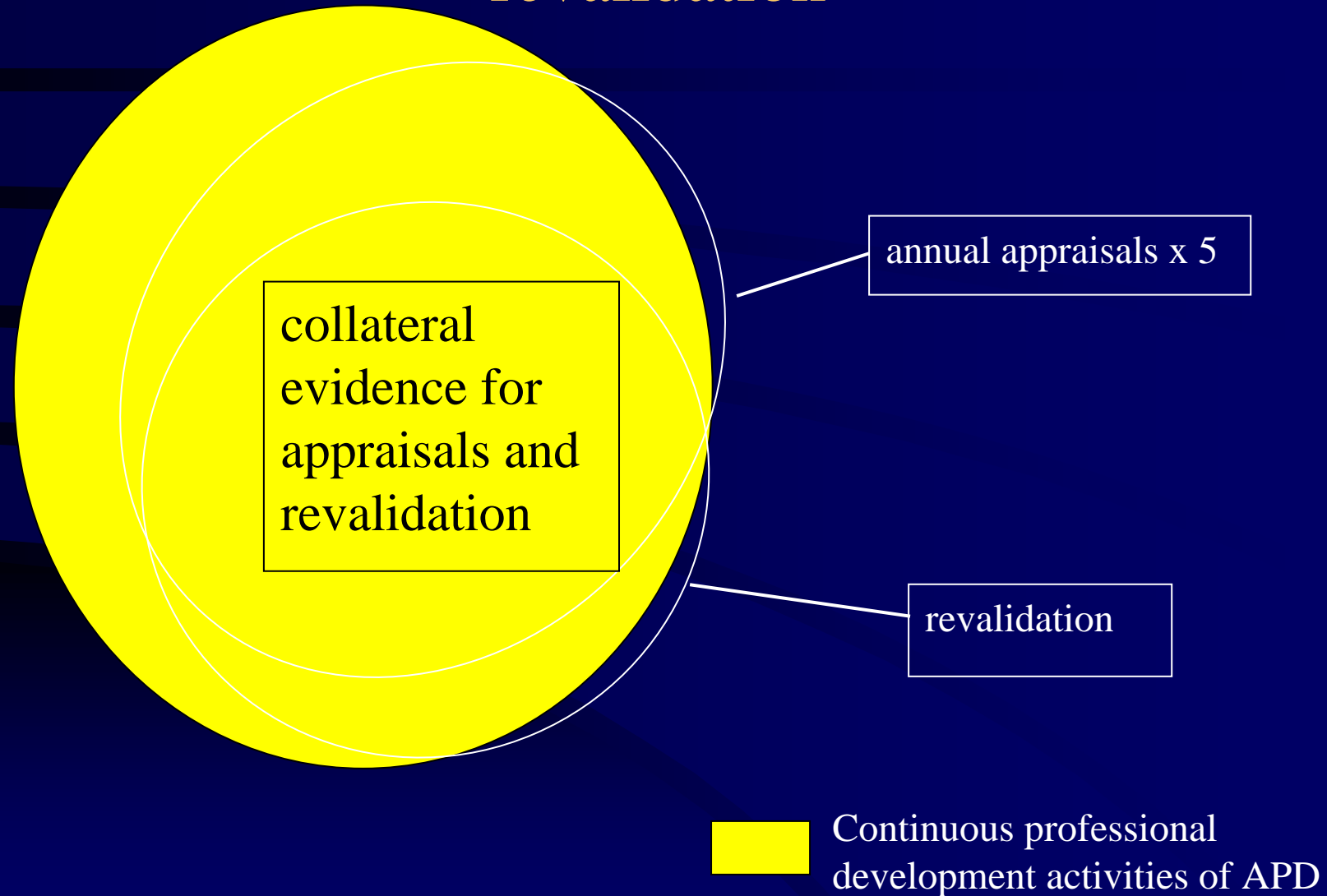
General Medical Council's revalidation group — recommendation
to revalidate

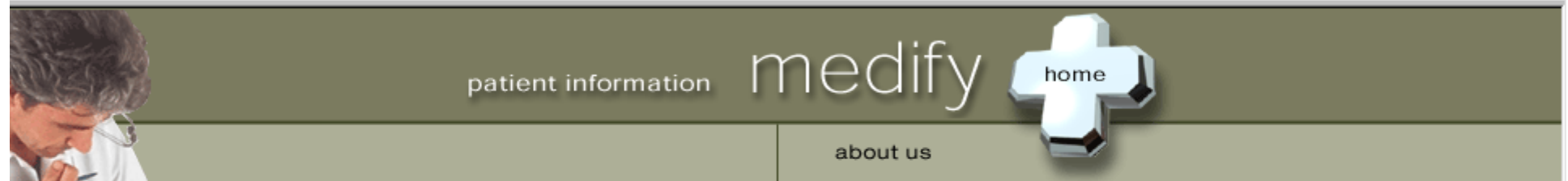


General Medical Council



Juxtaposition of APD, annual appraisal and revalidation





what is Diabetes?

- The pancreas
- The digestive process
- Controlling Blood sugar levels.
- Hormones for controlling blood sugar.
- What is the normal blood sugar range?
- Types of Diabetes
- Defining Type 1 Diabetes
- Borderline diabetes
- causes
- symptoms
- diagnosis
- reatments
- what can I do?

The pancreas

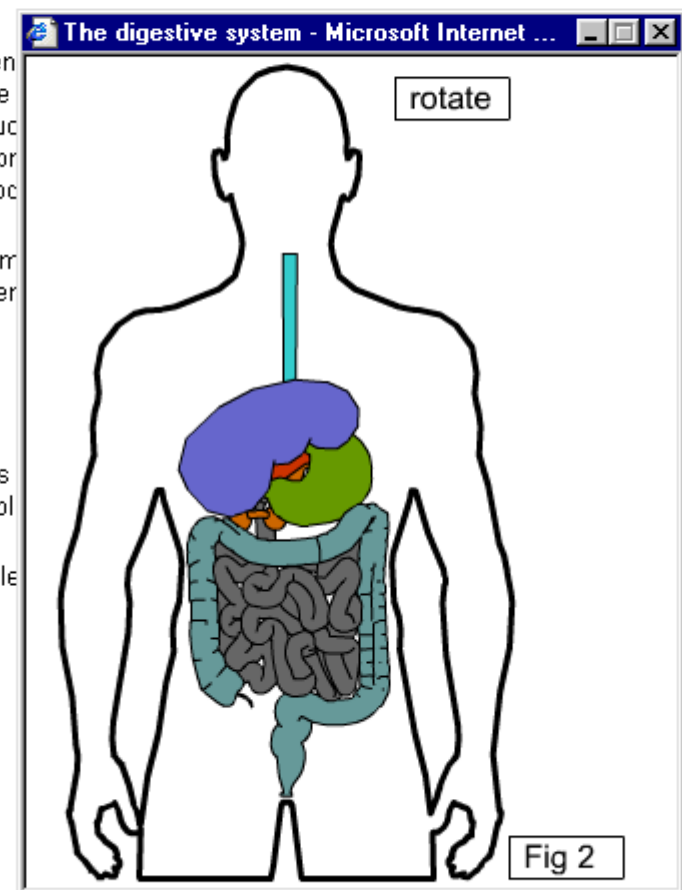
The pancreas is a small yellowish gland, which lies ben against the spine and is attached to the small intestine an essential aspect of the digestive system as it produc amylase and lipase) that enable the digestion of fats, pr carbohydrates before they can be absorbed into the boc

The pancreas contains small islands of endocrine (horm 'islets of Langerhans'. Active within the islets of Langer alpha cells, each with a specific role.

diagram

Beta cells produce the hormone glucagon. Glucagon is stimulates the liver to create glucose and thus raises bl

Alpha cells produce insulin, which lowers blood sugar le




le Edit View Favorites Tools Help

Back Back Forward Stop Home Search Favorites History Print Mail New Tab

ress http://www.medify.com/pace/courses/diabetes/nav/index.html Go

diabetes education

medify professional



quick links

about us

clinical information

Module 1

Module 2

Module 3

Module 4

Final Assessment

Diabetes

The Postgraduate Education Allowance for this course is:

2 hours Disease Management
2 hours Health Promotion

After successful completion of the course, the certificate of completion and the Postgraduate Education Allowance Certified Claim Form will be sent to your postal address.

Module 1: Classification and Diagnosis of Diabetes

Classification and Diagnosis of Diabetes covers a variety of basic facts about the disease, including:

- UK prevalence
- Classification criteria for both type 1 and type 2
- The causes of Diabetes
- Diagnostic criteria
- Diagnostic tests

Taking approximately one hour to read and digest the information, the tutorial is succeeded by a short multiple-choice test, that makes direct reference to the text. A pass in this test will allow you to move forward to the next module: The Role of Insulin

Module 2: Insulin - Types and Regimens

ione

Internet

The RCGP Research CD-ROM

- Pilot CD ROM produced for evaluation:
 - Based on workbooks produced by RCGP on *Randomised Controlled Trials* (Underwood, Hannaford & Slowther) and *Statistics* (Eldridge & Ashby)
- Produce a comprehensive interactive package of information and practical exercises relating to research in primary care.
- Outline mapping for project developed.

Primary Care Research

[Index](#)[Search](#)[Help](#)[Introduction](#)[Research question](#)[Ethical issues](#)[Study design](#)[Practicalities](#)[Implementing](#)

Systematic review

A systematic review is a rigorous process in which all the trials in a topic have been systematically identified, appraised and summarised according to predetermined criteria.

Researchers conducting the review may apply to register with the Cochrane Database of Systematic Reviews (available within the [Cochrane Library](#)) and, if successful, must undertake to update their review.

As well as searching electronic databases (e.g. [Medline](#), [BIDS](#), [EMBASE](#), [CINAHL](#)) attempts should be made during the review to hand search specialised libraries, communicate with published authors and key opinion leaders in the field to identify unpublished reports and those from the grey literature.

The scientific quality of the reports identified will be rated. A systematic review can, but need not, involve [meta-analysis](#) as a statistical method of adding together and numerically summarising the results of the trials that meet minimum quality criteria. A meta-analysis will give more weight to results from larger studies.

**B**

Chapter 2, Section 10, Page 1 of 2



Evaluation

- Questionnaire survey:
 - Purposive sample (n = 428)
 - Primary care researchers
 - Educationalists
 - RCGP Master Class delegates
 - RCGP Research Group
 - NHS E R&D Research Practices
- Follow-up telephone interviews (n = 15)

Response Rate

- Questionnaire response rate 40%:
 - Respondents well-disposed to idea of computer assisted learning?
- Non-response:
 - Workload / vacation
 - Equipment (hardware and software)
 - Interest

Results

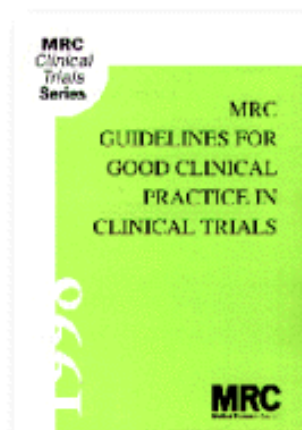
- CD-ROM very well received by respondents:
 - Over 90% found the content interesting and well explained.
 - Direct links to journal papers valuable resource.
 - Strength of package in external links to research resources.

research funding schemes

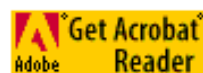
Medical
Research
Council **MRC**

MRC GUIDELINES FOR GOOD CLINICAL PRACTICE IN CLINICAL TRIALS

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How effective do you think this is as a method of self-directed learning? (%)

Very effective	Effective	Neither	In-effective	Very in-effective
23.1	58.5	12.2	2.7	1.4

Interview respondents described advantages of the CD

“It’s a very cost-effective method of learning and cuts out the travel time of getting to and from a course, especially if based in a remote and rural area. You can find all you want from one session of looking at the computer”.

Researcher

There was some concern regarding:

- Potential lack of support.
- Difficulty reading from computer screen.
- Protected time.

The web based MSc in primary care

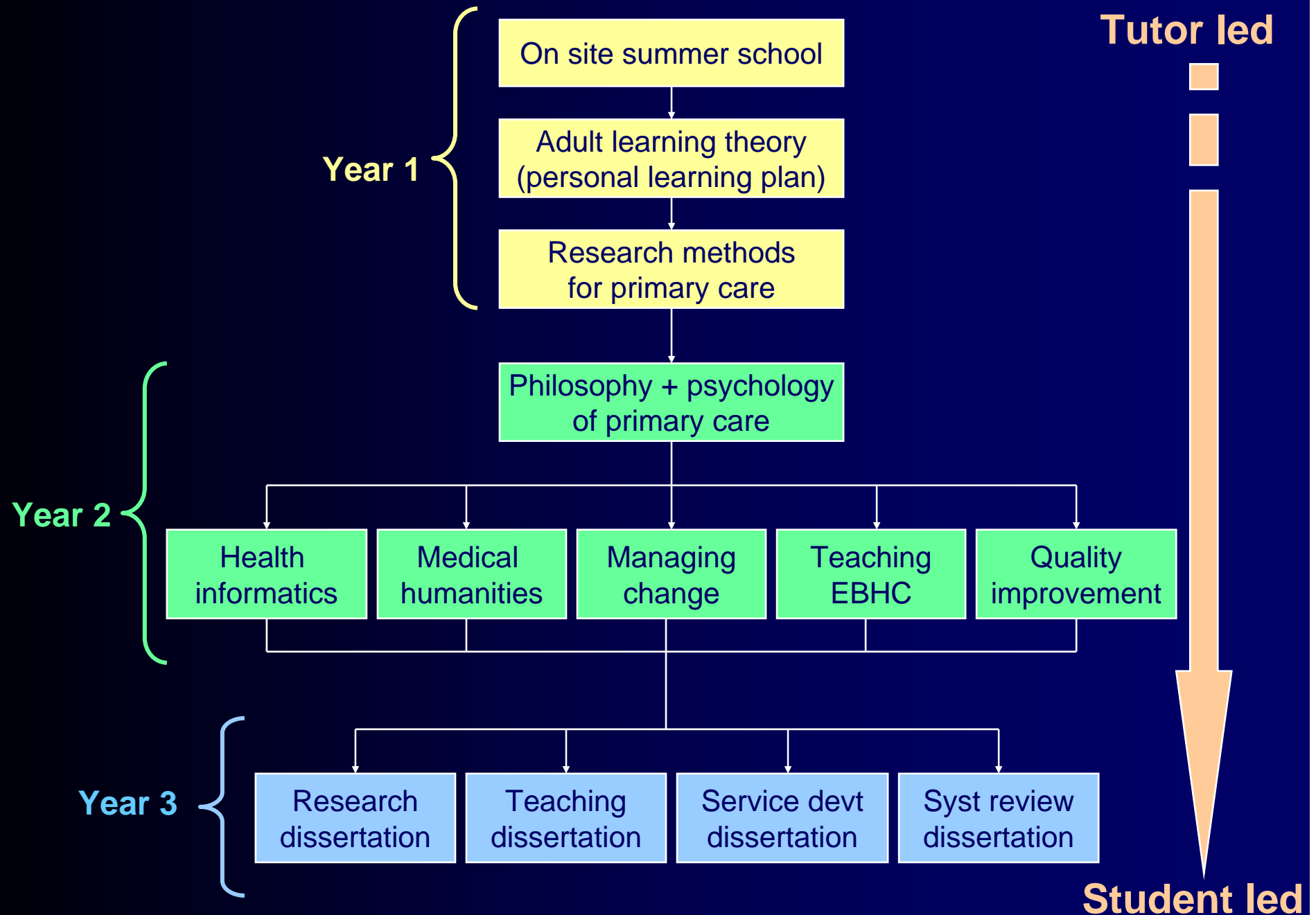
- 3 years part time at UCL
- Began in 1998; 28 students
- Interprofessional and interdisciplinary
- ‘Process’ oriented: theory and practice of
 - Research
 - Teaching
 - Service development

The course team

- Interdisciplinarity is key!
 - 3 GPs (including one ‘techy’)
 - Psychologist
 - Social scientist
 - Educationist + change management
 - Project manager

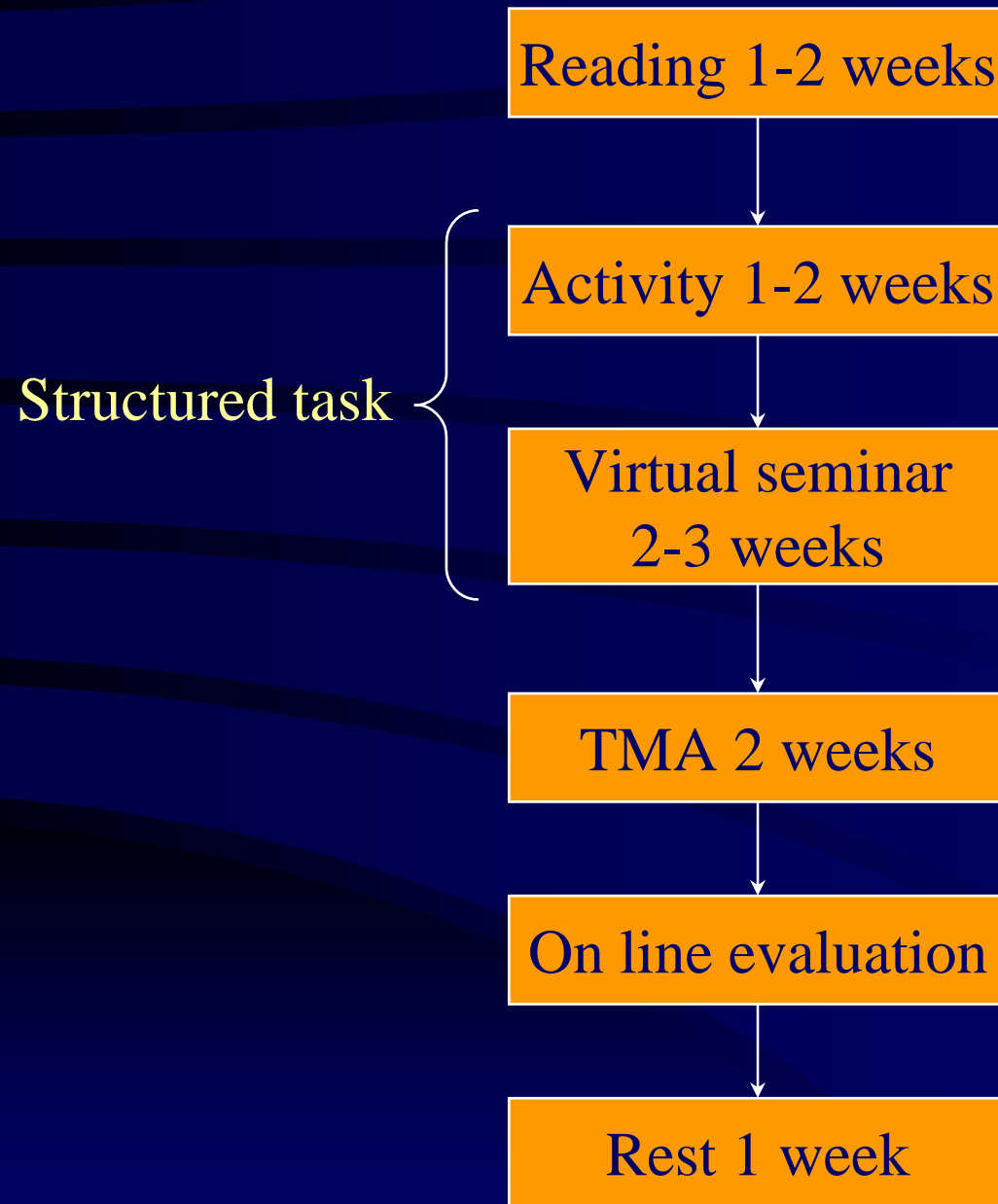
The students

- UK + Europe (+ 1 from USA)
- Wide diversity
 - GPs (mostly senior position e.g. PCT, tutor/trainer)
 - Nurses (clinical and managers)
 - Pharmacists (strong tradition of d/learning)
 - Managers (mostly senior – up to chief exec level)
 - Public health docs



The building block of the course

- Study unit = 5 credits (16 of these = MSc)
- Virtual seminar
 - Structured online discussion which takes place halfway through each study unit
 - Makes explicit use of diversity of background and professional perspective
 - Works towards an essay-style assignment



The Future

There can be little doubt that e-learning is here to stay. The potential is enormous, especially with advances in technology that will allow rapid access to high-quality resources, both on- and offline, from work and home, and at a time and pace to suit the individual.

Sandars J. e-learning: the coming of age *Education for Primary Care*
2003; 14: 1-5.