

aims in our new curriculum. Firstly, in relation to communication skills it addresses the development of students' skills in self awareness and reflective learning. Secondly, the workbook encourages the students to understand their patient as a complex person whose health and wellbeing depend on more than biomedical considerations. The depth and extent of this understanding have been shown in some work of exceptional quality and insight.

We believe that the integrated workbook assignment embodies the ideals of our curriculum and, in particular, has considerable potential for continuing the General Medical Council's recommended strands of ethics, law, behavioural science, and communication skills throughout the clinical course.

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1 Lowry S. Assessment of students. *BMJ* 1993;306:51-4. (2 January.)

## Harvard's "new pathway"

EDITOR,—As one who taught on Harvard's "new pathway" during the two pilot years,<sup>1</sup> as well as on its traditional courses, I would like to make some comments.

The success of any programme rests on the faculty's enthusiasm and support. Teaching well takes time and often yields little tangible reward. Harvard's new pathway got through its pilot years relying on the motivated staff and fellows. This staff may not be available at many medical schools.

The greatest change in the curriculum produced by courses based on the new pathway is seen in the preclinical faculty. Preclinical staff usually have busy schedules and may not be particularly well oriented to clinical matters. For example, teaching, say, the pharmacology of tetracycline in the traditional way is usually fairly easy for a preclinical pharmacologist with a related scientific interest. Less easy for (and possibly of less interest to) preclinical staff is dealing with a case study for the new pathway; such a case might start with the pharmacology of tetracyclines, pass through their therapeutic use in general, and end on a debate about whether oxytetracycline should be used as prophylaxis for traveller's diarrhoea in Mexico. Team teaching, with both preclinical and clinical staff present at each session, may be a feasible alternative, given the staff available at most medical schools.

It is true that the new pathway was oversubscribed in both pilot years. During the first pilot year, however, there was a sense among the "traditional" class that their colleagues in the new pathway were taking an extraordinary gamble with their medical education. During the second year this feeling persisted, but less strongly. I do not agree with Stella Lowry that "special arrangements that had been made for the new pathway students had caused resentment among other students, who felt that they were being treated like second class citizens."

Lastly, the success rate at Harvard in the national board examinations has always been extremely high (as it is at most American medical schools). These examinations are probably a poor instrument for measuring the quality of medical education because they concentrate on factual retention.

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1 Lowry S. Making change happen. *BMJ* 1993;306:320-2. (30 January.)

## Community based medical education

EDITOR,—Dr Nigel Oswald, cited by Stella Lowry,<sup>1</sup> is correct in implying that learning skills in clinical decision making requires seeing large numbers of patients in a short space of time. This, however, is an argument against rather than for community based learning.

This is illustrated by an example from our practice. An average general practice of 10 000 patients refers 34 patients a year for assessment of breast lumps. A student attending a well directed breast clinic may personally see this number of patients in less than a month and be taught to make an accurate clinical assessment. She or he would have to spend a year in general practice to have the opportunity to acquire similar skills. To paraphrase Oswald, "It is more important to see 30 patients who might have breast cancer than five who do (but it is useful and likely that you will see them too)."

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1 Lowry S. Trends in health care and their effects on medical education. *BMJ* 1993;306:255-8. (23 January.)

## Teaching how to elicit and interpret physical signs

EDITOR,—John R Hampton may be right to lament the decline in doctors' abilities to elicit and interpret physical signs, but I believe that he is wrong to conclude that training in the setting of general practice will sound the death knell of these skills.<sup>1</sup>

My memories of cardiac teaching rounds are of a dozen students queueing to listen to a murmur while the registrar stood at the end of the bed swinging a stethoscope and staring out of the window. Aware of restive colleagues, one listened hurriedly and joined the whisper going round the group: "What did you hear?" Coming back later on one's own was rarely useful: even if the relatives weren't round the bed there was rarely a doctor prepared to give guidance. "We don't spoonfeed you here" was one of the less excusable reasons given for declining to help floundering students.

Traditionally, doctors were trained by being apprenticed to established physicians. In hospitals the system has broken down under the pressure of numbers and new teaching methods are only slowly being found, but teaching in general practice has remained close to the tradition in which older generations of doctors learnt their skills.

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1 Hampton JR. Path to clinical confidence. *BMJ* 1993;306:595. (27 February.)

## Move a medical school to Milton Keynes

EDITOR,—Why not move one of London's medical schools to Milton Keynes? Designated to receive most of its population from London, the city could now adopt one of its medical schools as well. There are precedents for such a move: during the second world war some students and staff from University College Hospital, London, relocated to Cardiff.

Milton Keynes has its own hospital; consultants

and senior staff could move there with the medical school. Even the name of the medical school could be retained with just the postcode changed.

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## Antenatal diagnosis of Down's syndrome

EDITOR,—The increase in antenatal diagnoses of Down's syndrome suggests a more widespread use of biochemical screening. This, and analysis of the results by David E Mutton and colleagues,<sup>1</sup> is to be encouraged but raises some interesting points which have potential implications for resource allocation. The two main reasons for antenatal screening are (a) to plan the most appropriate place and mode of delivery to minimise the hazard to neonatal life and (b) to offer termination of pregnancy if the diagnosis is made before 24 weeks' gestation (previously 28 weeks').

From Mutton and colleagues' raw data, assay of serum  $\alpha$  fetoprotein concentration detected 21% of the detected cases in women under 35 while triple testing detected only 17%. This might suggest that assay of  $\alpha$  fetoprotein concentration alone is better at detecting Down's syndrome than triple testing. The converse, however, is the case, and the difference can probably be explained simply by the more widespread use of assay of  $\alpha$  fetoprotein concentration during the period studied.

Although the total proportion of diagnoses seems to be rising, the rise is steepest in those who historically have fallen into a high risk group—that is, woman aged 35 and older. This is not surprising as the algorithm to assign risk is weighted in favour of such cases. Unfortunately, around three quarters of cases of Down's syndrome occur in fetuses of women under this age, and in 1991 biochemical testing detected only 6.5% of all cases of the syndrome. From the analysis we do not know the proportion of pregnant women who participated in this form of screening, but it seems that around 48% of cases might be detected if triple screening was universal.<sup>2</sup>

Detailed ultrasound scanning detected 7.2% of all cases of the syndrome, though, again, the same rules apply—that is, what proportion of all antenatal patients underwent detailed scanning? Recently, however, Luck reported that in an unselected population detailed ultrasound scanning detected all of the cases of Down's syndrome when a physical abnormality was present.<sup>3</sup> At least half of all fetuses with the syndrome have a congenital heart defect, and many others have bowel atresias. Perhaps of greater importance, however, is that only half of liveborn infants with aneuploidies have Down's syndrome. Many of the other common aneuploidies (such as trisomy 13, trisomy 18, and Turner's syndrome-XO) are associated with physical abnormalities that are more readily appreciated on ultrasound scanning than the subtle ones associated with Down's syndrome.<sup>4</sup> Furthermore, ultrasound scanning detects other physical anomalies, of which some are associated with genetic abnormality. Many represent a hazard to neonatal life. If these anomalies are detected in good time the parents can receive counselling and the subsequent management of the pregnancy can be planned, so reducing the national perinatal mortality rate.<sup>5</sup>

Detailed ultrasound scanning has been shown to be cost effective as it detects most cases of Down's syndrome as well as other life threatening conditions.<sup>5</sup> Perhaps its wider implementation in early pregnancy should be an aim of all obstetric departments.

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