EDUCATION AND TRAINING

The teaching hospital and medical school AD 2010

Mountaineers get frostbite, deans get questionnaires—it is an occupational hazard. A recent questionnaire, under the above title, is an exception: there are no yes/no boxes to tick on carefully engineered questions ('how ridiculous to force complex decisions into a straitjacket like that'), or scales from 1 to 5 to balance your mark along ('how ridiculous . . . into elastic indeterminacy like that'). There are eight questions for comment, that is all.

How ridiculous . . .—but also how beguiling. Who can resist the invitation to an essay on the future, gas bags and all? R L Stevenson, actually, who wrote 'to hold a pack upon a pack-saddle against a gale out of the freezing north is no high industry, but it is one that serves to occupy and compose the mind. And when the present is so exacting, who can annoy himself about the future?' [1]. Looking after medicine and medical schools in the teeth of a gale out of the freezing north—read NHS reforms—may indeed be no high industry, but it surely occupies the mind. Does it compose it?

Question 1

Can the classical model of teaching hospitals, even if relocated, meet the challenges and opportunities of the future? Meet the challenges and opportunities of the future is about as hackneyed a phrase as you can get, always excepting the green shoots of recovery. And classical, that means whatever you choose. Useless question—pass.

Question 2

Will the revolution in bioscience and the application of molecular genetics to medicine require a small number of high technology research hospitals? Answer: yes, of course, but not full stop. For a start let us look at research hospitals. Medical schools ('or schools of health science'—four words instead of two must be better) are mentioned once in these questions. Medical schools with their hospitals are the units we are talking about, and research hospital is just one aspect of their functions. The dedicated research hospital outside a medical school, exemplified by the MRC's venture at Northwick Park, was not a success in this country; all that pain is not for repetition. The accent in the question must be

THOMAS SHERWOOD, FRCP, FRCR *Clinical Dean, University of Cambridge School of Clinical Medicine* on high technology. If that means high cost installations such as PET scanners, not every medical school needs one, and a small number is right. But bioscience and molecular genetics are ubiquitous academic developments and cannot be confined to just a few medical schools. Nor is the implication of a smaller number of medical schools attractive: we need to train more doctors, not fewer (Campbell Committee), and mammoth schools with more than 150 entrants a year, say, do not work well (eg more hackneyed stuff, like 'communication skills in the medical factory').

Question 3

Will the advance of information technology, new imaging techniques and minimally invasive surgery make the patient's attendance at a central hospital, to receive the most expert diagnosis and treatment, unnecessary? Let us not deceive ourselves. The idea of the sick patient attending the diagnostic/therapeutic bay in the surgery, to be plugged in, serviced and delivered repaired as new, is a garage promoter's confidence trick. It is neither realistic, humane—nor scientific. The sick patient needs a doctor or nurse-practitioner who can talk, probe, form likely hypotheses on what is wrong, and, if necessary, institute experiments (investigations-sharply aimed and economical, as kind and knowledgeable scientists do). That is the way of humanity and science; *heuristics*, if a foreign word is required to make it sound more impressive.

The central hospital and its experts are quite important as the revolution with the new techniques gets under way. In the new imaging, for instance, 'no that's a normal landmark, not a tumour' is a much needed and frequent corrective. The higher the *info techno*, the better the opinions required in medicine.

And we are poor. Not as destitute as the majority of patients living below the north-south divide of the Brandt line, but certainly not affluent. If we educate doctors or nurse-practitioners away from bedside skills, able to practise only in half a dozen energy-rich countries, we are failing the majority of our own patients, let alone those overseas.

Question 4

In future, shall we have medical schools or schools of health science which train a range of practitioners with direct patient responsibility, eg in nursing, nutrition, psychology, audiology, physiotherapy etc, as well as medicine? Yes, with room for diversity in what different schools do best.

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Question 5

How far is it feasible (in both cost and quality assurance) to disperse student teaching away from main hospitals into a large number of community health care facilities? In the Cambridge School of Clinical Medicine we are just setting out on an alternative track of medical student training based in general practice. We have high hopes of the experiment, and shall watch it carefully before enlarging it. But 'disperse' has a ring of 'dilute' about it which does not express our purpose. The concentration of expertise in the teaching hospital is the necessary back-up to any such scheme, with general practice the backbone. This is symbiosis, not parasitism where one of the partners becomes the downtrodden and ultimately doomed component of the system. Medical education will not thrive as a carcase given over to this or that organism for gaining an upper hand.

Question 6

Will the rise in teamwork and specialisation drive a return towards the 19th century model of different kinds of 'doctors', trained in different ways? I am bewildered here: is this a replay of physicians versus barber surgeons? Fifty per cent of medical students wish to become general practitioners, surgeons need to know medicine, etc. Professor Sir Roy Calne has painted a future for surgery where some technical experts ('OK surgeons') do just keyhole gallbladder or knee operations [2]—in the 5% of the globe that can afford them. There may well be room for training such technicians who do not need a complete medical education among the diversity of medical school activities as in 4 above. But 5% interests cannot dictate the medical curriculum.

Question 7

In a society which responds to consumer demand for quality and accessibility, what kind of medical care system (and doctors) will the customers want? My evidence comes from years of students returning after their electives overseas, and from the Europe we are joining. The answer from both is commonly that the system and people grown out of the past 45 years in the NHS appear a perhaps dowdy but rather bright beacon. All countries want a health service which is cheap, good and fast; in truth, only two out of the three can be found together anywhere [3]; and plenty of places do not even have one. Students opt for medicine fired by the ideals of service to others, and the NHS has flourished on that base of talent and verve-an imperfect medical system remarkable for its satisfaction gradient. Quality assurance is the cry of the moment, and the heart's (and mind's) assurance might usefully be added.

The British public is quite sophisticated, not the dumb rapacious market throng as sometimes put forward. Purchasers are discovering that buying health care equitably is different from satisfying a high street demand for, say, electronic gadgets. The law and school education are further ready examples: citizens place decent values in these three matters near the top of their domestic political agenda; and 96 out of 100 people in a Midlands hospital wished to be called patients, not consumers, customers or clients [4].

Question 8

If most medical care remains a charge on general taxation, what volume of specialised medical services and what number of highly trained (and paid) doctors will the tax payers be willing to fund, assuming the UK economy grows in future at the same rate as in the past 15-20 years? The first part on rationing (sorry, prioritising) is too difficult, but the second is easy: according to the Campbell Committee about 4,500 new medical students each year are needed. We have one of the smallest ratios of students/population in Europe. This is thanks to the medical quota in British universities, and contrasts with several thousand unemployed doctors in countries such as Germany or Italy; not to speak of the army of specialists and lack of primary care doctors that Hillary Clinton is attempting to rejig in the USA, with a measure of difficulty.

But watch out—complacency and afflatus have reared up. Enthusiastic gifted medical students turn into cynical, sometimes dull and disaffected young doctors, patients are complaining, and our waiting lists for chronically debilitating disorders are still scandalous. The revolution in bioscience, the advance of information technology . . . are really no excuse. And when the present is so exacting, who can annoy himself about the future? Well, it is annoying that evolution seems to work much better than revolution, but also that it is too slow. Let us compromise by planning advances for 2010 in steps, guided by trial and error, so that the baby as well as the reasonably warm and clean bathwater can both be saved. That might even be good for patients and doctors.

References

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- 4 Probert CSJ, Battcock T, Mayberry JF. Consumer, customer, client, or patient. *Lancet* 1990;**335**:1466–7.

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