zine, which caused a tachycardia, and then methyldopa. Although she was apparently a "mild" asthmatic, subsequent serial measurements of peak flow rate through the day showed a diurnal variation with a consistent early morning dip from 400 l/min to 100-180 l/min, a recognised pattern in some asthmatic patients.[3]

Discussion

Near-fatal bronchospasm has recently been reported after the accidental ingestion of a single dose of oxprenolol,[4] although there was a fairly prompt response to conventional intensive therapy. In our patient, however, similar treatment with the addition of large doses of isoprenaline was ineffective, and an appreciable improvement occurred only when halothane was introduced after 12 hours of active therapy. Although halothane has been credited with a beta-2 agonist effect it probably produced bronchodilatation by a direct effect on bronchial smooth muscle.[2]

This case emphasises the danger of giving beta-blockers to patients with a history of asthma. Some patients whose asthma is in remission may show only minimal changes in peak flow even after taking a non-cardioselective beta-blocker.[5] Nevertheless, the usual response is a fall in peak flow, which is significantly less with cardioselective drugs than non-cardioselective ones. Cardioselective beta-blockers also permit a bronchodilator response whereas non-selective ones do not.[5] Thus if beta-blockers are considered essential treatment for a patient with asthma a cardioselective agent should be used,[6] and treatment should preferably be started under medical observation, monitoring peak flow for at least two to three hours with bronchodilators available.

There is clearly a worrying lack of awareness of the selectivity or otherwise of currently available beta-blocking drugs. We suggest that in view of the near-fatal outcome of our patient greater attention should be drawn to this point, particularly when new preparations are introduced. The trend towards once-daily dosage with long-acting beta-blockers is an additional hazard in patients such as ours whose medication may be taken at the time when peak flow is at its lowest and the consequences of added bronchospasm most serious.

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Musings of a Dean

A post-Christmas carol

"What's Christmas time," asked Scrooge, ". . . but a time for paying bills without money; a time for finding yourself a year older, and not an hour richer; a time for balancing your books and having every item in 'em through a round dozen of months presented dead against you?" Never a more pertinent question for deans, or for vice-chancellors for that matter—and not just at Christmas.

Few people realise how difficult University accounting has become. It used to be possible to plan in five-year periods. Not so now, partly, of course, because of inflation and salary explosion. The financial year begins without knowledge of the year's budget; indeed it may be several months before the figure is announced. Even then there is no undertaking that wage rises, over which the University has no control because they are arrived at by national bargaining, will be reimbursed; indeed it becomes progressively less likely that they will. Responsible, well-judged budgeting is impossible: astrologers, soothsayers, and fortune-tellers would do as well as accountants and better than deans.

As if this were not enough the University Grants Committee (UGC) (which does its best in a hard world) has recently notified universities that they may expect a reduction in recurrent grant for 1981-2 of 3½% as a result of government cuts and almost as much again as a result of new policies for overseas students. Most of an institution's grant is committed to salaries, and inevitably staff-student ratios and technical support must diminish.

Collapse of the dual-support system

A university's salvation in a competitive world might reasonably be seen to lie in attracting increasing outside funds for research—"soft" money. Soft it may be in the sense that it is the padding in the research of any active department but it is in no way a soft touch. The securing of outside grants is one essential of the dual support system: the UGC grant to universities is intended to provide academic staff salaries and the basic laboratory accommodation (optimistically termed the "well-found" laboratory); grants from research councils and other bodies are expected to provide selective support for specific research projects.

Many faculties and colleges (and medical schools figure high in the list) have been most successful in attracting steadily increasing outside support while their UGC-funding has been static or has actually declined in real terms. Unfortunately, success in attracting new resources has carried with it the seeds of its own destruction. The "well-found" laboratory has not

proved to be a sufficiently sure foundation on which to build excellence because research generates overheads in addition to the costs of additional staff, equipment, and materials covered by the grant itself. In 1971 the UGC estimated that research grants cost the host institution on average 38% of the value of the grant in overheads, such as the provision and maintenance of additional or more intensively used accommodation, staff facilities, telephone charges, and administrative costs. Consequently the more successful an institution is in research the sooner it generates an insupportable financial burden unless grant-giving bodies agree to pay overheads, which most, including the research councils, do not. Small wonder that Sir Alec Merrison is now chairing a working party to examine the collapse of the dual support system.

Converging forces of ruin

Several factors are currently against universities: research overheads is one, the reduction of central government funds is another, and change in the method of funding overseas students is a third.

No more need be said about the financial consequences of successful research except that vice-chancellors who fail to fight for excellence are denying their own birthright. Government expenditure on universities is expected to fall by about 3½% in 1981-2, and why should universities not share the nation's burdens? That cut is across the board, but the impact of the change in overseas student funding has both general and more selective elements, larger at worst and immensely more damaging in specific instances than the 3½% cut. Even the general element is very variable in its impact because it is proportional both to the number of overseas students and to the real cost of the course. Students pay a standard subject fee but the amount deducted from the faculty's budget is the "economic" cost of the course provided. Thus even a full house of fee-paying overseas students does not cover the entire loss of income. But if the number of overseas students falls their fees are no longer available to help bridge the gap and a very substantial shortfall develops.

Medical faculties have reason to be particularly concerned at these converging forces of ruin because being the parents of the most costly courses they quickly become the object of their non-medical colleagues' suspicion if not avarice. At the same time within medicine itself postgraduate institutes are hit very hard by the overseas student factor while undergraduate schools continue to operate in a buoyant market.

Who subsidises whom?

Lack of detailed financial information is currently the greatest danger because it is impossible to agree equitable solutions until the facts are laid honestly upon the table. This financial information gap starts at the top and runs throughout the whole system of financing university education. The UGC does not reveal how its total grant to a university is calculated nor the proportion of it which is for medical undergraduate (which includes an element of postgraduate) or specifically postgraduate education. A specific sum must be earmarked for medicine because the UGC is obliged to fund enough medical students to achieve a national target of newly qualified doctors.

Even if vice-chancellors know how much they receive for medicine the final decision whether to use that resource, no more and no less, for medicine rests with them. Their decision should be public knowledge for only then can it be established whether medicine is subsidising other faculties of a university or bleeding them to death. At the moment who can say?

This problem is not new but it surfaced with a vengeance two years ago when the University of London expressed concern at the rising proportion of its income devoted to medical education and indicated that something must be done. The deans of the medical schools apparently failed to ask the most pertinent question (and they will doubtless correct me if I am wrong)—namely, whether the rising proportion of expenditure had been matched by a rising allocation from the UGC in respect of medicine. Instead they simply said that if economies were inevitable it might be better to consider closing one or more schools or postgraduate institutes than to weaken all; hence the creation of the Flowers Working Party.

Final decisions for or against Flowers or modifications of his recommendations have yet to be made, but no medical faculty can take comfort from the obstruction by the Senate of the University of London to compromise proposals put forward with the wide (but inevitably non-unanimous) support of its medical faculty. *The Times* hinted that both personal interests of those outside medicine and institutional fears of the imminent rationalisation of non-medical education were material factors in the fierce lobbying which preceded the narrow defeat of the vice-chancellor's compromise proposals. What happened there yesterday could well happen elsewhere tomorrow.

It seems incredible that all this could take place without an open audit of the position of medicine vis-a-vis other faculties; was medicine the donor or recipient of funds in relation to other disciplines in the mind of the UGC? Was medicine justly or unjustly being used as the university's whipping boy? How can the proper consequences of reduced support for overseas students in different faculties be assessed without knowledge of how they stand in relation to each other at the outset?

Overseas students

One thing is certain, demand for undergraduate medical education from fee-paying overseas students still far exceeds the available supply of places. Primarily undergraduate medical schools in Britain have never taken a large number of overseas students and have only to weather the storm of a 3½% cut in income in line with government policy and to bear the loss of the difference between minimum fees received and economic fees deducted for a small number of students; no undergraduate medical school will be destroyed by a reduction of income of this size.

Postgraduate medical institutions are in a much more serious position. Their costs tend to be higher (and therefore the gap between minimum fee and economic fee is greater) and by all accounts their overseas postgraduate students are melting away. The funding of specifically postgraduate medical education has long been a grey area between the Department of Education and Science and the Department of Health which now urgently requires resolution if postgraduate medical institutes are not to disappear within five years. Undergraduate medical schools could not possibly share the postgraduate losses without being irreparably damaged in turn.

Scrooge's Christmas Eve

Whatever the solutions the problems must be clearly and publicly set out first. Experienced university administrators are accustomed to living in a financial fog, an environment which may leave more room for manoeuvre than the clear light of day, but fog carries dangers for the future of medical education and cannot be tolerated any longer. The world of university medicine (on which in the last analysis the quality of health care does depend) is becoming "foggier yet and colder," like Scrooge's Christmas Eve. If nothing is done now to clear the air, then, to misquote Bob Cratchit later in that tale, "God help us every one."

This is the third in a series of occasional articles from an undergraduate dean.