OxDONS syndrome: the inevitable disease of the NHS reforms

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The financial demise of Oxford's department of neurosurgery (OxDONS) was precipitated by the financial rules of the reformed NHS. In particular it was produced by the failure of "resources to follow patients"; the requirement that "prices have to follow costs"; and the use of private income for revenue expenditure, not capital expenditure. This process will eventually affect all hospital departments, but it affected the unit in Oxford sooner as it started as "efficient"—that is, underresourced—and has depended on income from extracontractual referrals and private work. Current NHS accounting rules act as a disincentive to private income being generated in NHS hospitals, and consultants should be aware of this.

Fig 1—Increase in patients treated since 1972 by Oxford's department of neurosurgery

Oxford's department of neurological surgery (OxDONS) has, I believe, a reputation for excellent care of patients, attracting them from all parts of Britain and elsewhere. Until 1994 it had no waiting list, and between 1972 and 1994 the numbers of patients treated increased from 600 to 2500 (fig 1). It has always been "efficient," mainly because of inadequate resources. For instance, in Winyard *et al*'s analysis of neurosurgical bed needs in England in 1981 we had the doubtful distinction of having the fewest facilities (table).¹ Our situation reflected the difficulty of a regional specialty trying to obtain resources from a local health authority that was not particularly interested in regional services. Appeals to the region were met with the claim that the region gave the necessary finance to the local health authority—though without specifically earmarking them.

Provision and use of neurosurgical beds in Oxford in 1978 compared with the average for England¹

	Oxford	England
Beds/1 000 000 population	11	28
Discharges and deaths/bed	38.9	22.9
Length of stay (days)	8.6	12.9

We therefore welcomed the proposals in the government white paper that "resources would follow patients." If we were successful in attracting more patients then more resources would presumably come to the department. Market forces would favour lean, efficient, clinically excellent departments, especially those without waiting lists. Indeed, one might think that we were the ideal department from the viewpoint of any politician or health service economist.

What actually happened

In the early 1990s our department continued to attract more patients. Most were from our catchment area, but there was an appreciable number of extracontractual referrals, referrals from general practitioner fundholders, and private patients. For many years the neurosurgeons had treated most of their private patients in the infirmary, hoping that this would help the hospital and their department. This proved a naive

hope because initially the income from private patients subsidised other departments of the hospital while latterly it was used to meet the 3% efficiency savings imposed by the Department of Health. Hence this money was used for revenue, apart from a few small capital items squeezed into the current financial year.

By 1994 the department was treating 2500 patients, using 36 adult beds, 4 intensive care beds, and 1.5 operating theatres for a population of about three million. We regarded these facilities as inadequate and reinforced our arguments for more facilities. In 1993 we had presented our hospital managers with a copy of the Society of British Neurological Surgeons' publication, *Safe Neurosurgery*.² This described minimal facilities for safe neurosurgery. Our department, on this basis, should have 80 beds, 10 additional intensive care beds, and three operating theatres.

The department is the cheapest neurosurgical department in England, with an average cost of £1994 per case, compared with the average of £3124 for England. Its length of stay was six days. Indeed, if the cost per case was increased by 50% the department would still cost less than the average neurosurgical unit and less than our neighbouring neurosurgical units. Although all neurosurgical units do much the same work, the costs vary from £1994 to £5072 (K Curtis, Cambridge Health Authority).

Hyperefficiency leading to unsafe neurosurgery

By the end of 1994 the staff (nursing, secretarial, and medical) were exhausted and the referring hospitals had become increasingly dissatisfied with the delays in admitting patients as well as the early discharge of patients. The amount of operating performed outside normal hours had increased to 40 hours a week to compensate for the inadequate operating time. I formally requested the hospital's managers to increase our charges by 50% to enable us to improve our facilities but this was rejected. Since the inception of the Radcliffe Infirmary Trust, I (and my fellow lead consultants) have repeatedly asked the chief executive, finance director, and chairman of the trust board to separate the "profit" from private patients' fees so that it could be used for capital development to meet the increased demand for our services.

The reply was always that they were "not allowed" to do so, although there was little apparent desire to debate this issue with the NHS Executive or consider ways around this alleged ruling. Surely, we wondered, if trusts were independent business units working in a market, at least private income could be used for the hospital's benefit, rather than the purchaser's. Not to do so seems a massive disincentive to attract private patient income into the trust.

Furthermore, we were instructed to introduce a waiting list of at least three months for patients with sciatica, despite evidence that early treatment of such patients produces a better recovery in terms of return to work.^{3,4} By the end of 1994 we were having to transfer patients to any available intensive care bed in any district general hospital to accommodate emergencies, irrespective of whether the patient lived near there. We were also performing "day case neurosurgery," carrying out a craniotomy and then return-

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ing the patient to the sending hospital in the waiting ambulance because of lack of available beds. Our staff were spending much of their time just finding beds; our bed occupancy was over 100%.

In January 1995 I decided that it was no longer appropriate to admit the majority of private patients to the department in view of the shortage of beds available for NHS patients. I wrote to the chief executive of the infirmary (copying the letter to the Medical Defence Union) stating that in my opinion we had moved from being efficient to being "hyperefficient," which was, in fact, unsafe. This letter was not acknowledged, so I resigned as lead consultant in February 1995, having administered the department for 20 years.

Thus this department, which in 1989-90 could perhaps have been considered the ideal department—lean, efficient, good, even excellent, with no waiting list, and superb staff morale—and which subsequently became the first surgical department in Europe to obtain a BS5750/ISO9001 quality accreditation, had become, by late 1994 unsafe, hyperefficient, with exhausted and demoralised staff. Why did this happen?

The financial crises: the cause

The reason it happened, of course, was because we were trying to treat too many patients with too few resources and because of the failure of resources to follow patients, as promised. The failure to generate resources stems from two financial rules which the administration of the Radcliffe Infirmary were unable to break or even creatively bend. The first is that "prices have to follow costs," and the second is that extra income from extracontractual referrals or private patients is used not for capital expenditure but for revenue.

Figure 2 shows the inevitable result of prices following costs—that is, no surplus can be built into prices to allow for facilities to expand to meet demand. If the department starts by being efficient and has fixed facilities and low costs then its prices will be low. If that department is good and has no waiting list then it will attract other patients, including those from fundholders, extracontractual referrals, and private patients. Then the cost per case becomes even lower, so the prices to the purchasers fall further. However, because the facilities cannot be increased, these extra patients can be accommodated only by reducing the length of stay. Add to this the annual 3% efficiency savings, and this cycle has to go faster each year to

Fig 2—Circular diagram to show financial and clinical activity. The "3% efficiency savings" can be financed by increasing the number of revenue producing patients, but these will reduce the cost per case. The increased patient numbers can be accommodated only by reducing the length of stay if the facilities remain unchanged

Fig 3—Activity-financial cycle will inevitably, in time, seize up when the patient length of stay becomes too short. The department becomes "hyperefficient" or unsafe

balance the budget and to accommodate the increased patients necessary to balance the budget.

The second rule exacerbates the whole process: income from extracontractual referrals and private patients, which amounted to over £1m in 1993-4, was used for revenue, not capital, resulting in the cost per case being lowered even further. Thus this "extra" money benefited the purchasers rather than the hospital. If, on the other hand, the profit element of this income had been used for capital expenditure, so allowing expansion of facilities, then this would have slowed down the cycle by obviating the need to lower the length of stay.

The imposition of these two financial straitjackets turns the cycle faster and faster. This can be slowed by increasing the number of paying patients, but this is very short lived because they lower the prices still further. Inevitably the accelerating not-so-merry-go-round fails as the length of stay becomes excessively short. The department becomes hyperefficient, unsafe, and demoralised (fig 3).

Possible solutions

The short term solution is to reduce the number of patients. My colleagues and I removed the one group that we could remove, the private patients. This means, of course, that income falls and the subsidy enjoyed by the purchasers is no longer available. The deficit will therefore increase dramatically. Secondly, we have, most unwillingly, bowed to the purchasers' and hospital managers' demands and created a waiting list. The waiting list solves nothing; it just delays the inevitable time that hard decisions have to be made—quite apart from the effect it has on patients.

The long term solution is to reduce the numbers of patients treated or to increase our charges—or, alternatively, to go further into deficit. Of course, this situation might have been delayed or prevented, if we had been allowed to use the profit element of extracontractual referrals and private patient income for capital funding by creating a capital reserve (which I suspect other hospitals do by bending the rules).

The department now has two (nearly equal) groups: NHS emergencies and NHS elective patients. Any further reduction in patients seen will mean that the number of elective patients will be reduced, possibly altogether, leaving us to provide an emergency service only. The patients who are left—those with serious head injuries, subarachnoid haemorrhages, and malig-

nant gliomas—will not be the most “cost effective.” More benign conditions will be treated only when they have become emergencies and will then be much more difficult and costly to treat.

On a more mundane level there is evidence that placing patients with discogenic sciatica or radiculopathy on a waiting list reduces the numbers returning to work: is it really sensible in financial terms, let alone morally, to create a population of unemployed people in chronic pain who could otherwise be relieved of pain and return to work?

If there is to be a reduction of admissions then how is the rationing to be organised? Who will tell the patients? Will it be us, the purchasers, or the politicians? It is already clear that fundholders have a different perception of need from health authority purchasers, who themselves have a different perception of need from the consultants in district general hospitals who refer many of our patients. A patient with severe sciatica needs treatment within days or weeks, not months, and fundholders are willing to pay for this. In addition, patients' expectations are higher, as indeed are those of the referring doctors, and why not? It is obvious as well that purchasing organisations do not communicate with those consultants who refer patients to us. These doctors want us to take more patients sooner and keep them longer and this will obviously cost more money.

The alternative is to increase either funding or the budget deficit. At one time my colleagues and I would have been concerned to avoid the latter. Unfortunately, for reasons given above, the concept of the market is hopelessly flawed, and this has undermined the credibility of budgetary control for most consultants. Another solution would be unilaterally to increase our prices. As our unit is a monopoly supplier considerably cheaper than any other neurosurgical unit this makes considerable sense.

This crisis has affected our department perhaps more than others because we started underresourced compared with other neurosurgical units. It also affected us sooner because 20% of our departmental income came from extracontractual referrals and private patients. The lesson is clear: consultants using NHS facilities to do private work will be exacerbating the financial demise of their departments. It would seem sensible for the accountants to change the rules. Other departments, however, will inevitably be similarly affected, and when this happens, the NHS will become a national emergency service only.

I thank Dr Christopher Bunch, medical director of the John Radcliffe Hospital, Oxford, for encouraging me to report these views, which were presented to our purchasers and hospital managers on 30 June 1995.

Addendum

I can report that the safety of patients at the department has been restored to the previous high standard as a result of withdrawing most of the private patients. This has allowed the department's length of stay to increase and the overall number of patients to decrease, thus restoring the cycle shown in figure 3 to that in figure 2. This satisfactory situation has been achieved only by our accruing a large financial deficit: this need not have happened if private patient income had been used to expand facilities in the first place and not used to reduce our prices to the purchasers. The haemorrhage from the Radcliffe Infirmary to the purchasers has left it financially severely anaemic if not moribund.

- 1 Winyard GPA, McNeilly RH, Adams CBT. How many beds do we really need—for example, in neurosurgery? *BMJ* 1981;282:498-503.
- 2 Society of British Neurological Surgeons. *Safe neurosurgery*. London: SBNS, 1993.
- 3 Nygaard OP, Romner B, Trumphy SH. Duration of symptoms as predictor of outcome after lumbar disc surgery. *Acta Neurochir Wien* 1994;128:53-6.
- 4 Jonsson B, Stromquist B. Decompression for lateral lumbar spinal stenosis. Results and impact on sick leave and working conditions. *Spine* 1994;19:2381-6.

Commentary: misinterpretation of the rules

Colin Reeves

Mr Adams has concluded from the particular experience of his department that NHS accounting rules create a disincentive to treating private patients in NHS hospitals as a means of income generation. This is simply not the case. The income generated from private patients is making an increasingly valuable contribution to the resources available to treat NHS patients, and the rules are framed to accommodate this.

Mr Adams states that resources have not followed patients. In fact, as is clear from his article, all the extra patients treated in his department have brought in additional income to the trust, whether from the local district health authority, fundholders, or the private sector. Resources have indeed followed patients.

Mr Adams's other concern relates to the fundamental rule of the NHS financial regime that prices should be set to equal costs. This is an important rule for NHS transactions to create stability in the market by helping trusts to understand the nature of their costs and to prevent excess capacity being created (a problem currently being faced by the health care system in the United States, where a different approach to pricing is adopted).

There is, however, one proviso to this rule: when selling services to the private sector, trusts can charge what the market will bear so long as they at least cover their costs. In other words, trusts can plan to generate

a surplus from treating private patients. If the trust has correctly predicted demand for these services then resources will follow patients and a surplus will be created.

How any such surplus money is used is entirely a matter for individual trusts so long as it brings benefits, direct or indirect, to NHS patients. Thus it can be used to subsidise NHS prices, enabling NHS purchasers to buy more care (using it to help meet efficiency targets is equivalent to this). It can also be used to buy equipment or expand facilities for treating NHS patients, or for treating private patients if that would lead to yet further income generation from higher throughput. The actual decision made by a trust will be determined by which services will be demanded by its purchasers in the future.

While I have great sympathy with Mr Adams in terms of both the efficiency and effectiveness of his department, it does seem that his trust believes that increasing the capacity of his department was not as high a priority as expanding other services provided by the trust, at least in the eyes of potential purchasers. This is obviously something I cannot comment on, but it would not be right to conclude that NHS accounting arrangements create a disincentive to treating private patients in NHS hospitals as a means of generating additional income for trusts. Quite the reverse is true.