reducing the infection rate. Resources may be wasted through introducing measures to control infection that are either ineffective or used inefficiently.[17] Although antibiotic prophylaxis for caesarean section reduces the risk of infection,[2 8] savings to the hospital or benefits to the patient have not been fully measured.

The evidence suggests that prophylactic antibiotics have an important place in preventing infection after caesarean section. Nevertheless, every effort must be made to avoid unnecessary operations and to ensure optimum surgical technique. Further studies are required to define which patients are most suitable for prophylaxis, the best choice of antibiotics, the optimum dosage regimen, and the potential risks of resistant organisms.

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Cancer of the oesophagus

Find a good surgeon

Cancer of the oesophagus is a depressing condition with a poor survival rate. Having recently lost a colleague from the disease, I am well aware of the limitations of treatment, but depression leads to nihilism, and we may be able to do better.

Overall only about one in 20 patients with oesophageal cancer will be alive after five years. With such a dismal prospect why should they be expected to put up with complicated and painful treatment? Surely palliation is all that should be offered? The answer is that better results may almost certainly be achieved by better application of conventional methods of treatment (principally surgical resection) than is often the case in day to day practice.

Surgical resection of the oesophagus is risky. In 1980 a review of publications from around the world showed an average postoperative mortality of 29%—hardly likely to inspire confidence.[1] Many surgeons knew that they were doing better than this and so took up their pens. Today the average in published reports is 10-15% and getting lower.[2 3] Reports of mortality below 5% are not uncommon.[4-8] Surgical skill is an important factor: there is no place for the occasional oesophagectomist in the management of this cancer.[9]

Saeger *et al* reported a decrease in mortality from 36% to 7% in a single hospital over 14 years.[10] That such a large reduction in operative mortality may also improve overall survival from the disease has been documented in Australia by Morstyn *et al*.[11] A recent study from Nottingham has shown the sort of results that may reasonably be expected with a 10% mortality: the five year survival in those surviving resection for squamous lesions was 36% but for adenocarcinomas only 3%.[2] This is less than average: 12% would be more representative, but patients with adenocarcinomas fare less well in most series because of more advanced disease at presentation.[3]

No form of adjuvant treatment increases the cure rate after resection of the oesophagus. Randomised studies have shown no benefit from either preoperative[12 13] or postoperative radiotherapy (M Fok and G Zeiton, fourth world congress of the International Society for Diseases of the Oesophagus, Chicago, 1989). The response to chemotherapy for squamous carcinomas has improved enormously, with a 53% response rate to a combination of cisplatin, vindesine, and bleomycin.[14] A median duration of response of seven months in patients with advanced disease suggests that this line of treatment might be clinically useful in some patients with recurrent or inoperable disease. There is no evidence, however, that chemotherapy combined with resection improves outcome, but the final results of clinical trials are still awaited.

What about alternatives to surgery? Pearson reported a five year survival of 19% with radiotherapy as the primary treatment of squamous lesions.[15] These results have often been quoted but never equalled. Probably a better indicator of what is likely to be achieved is the five year survival of 8·3% reported from Manchester.[16] Radiotherapy does, however, have an advantage in treating cancer of the cervical oesophagus because laryngectomy may be avoided.

Unfortunately palliation is all that is possible in at least half and possibly nearer two thirds of all cases, either because the patients are old and frail or because of advanced disease. Dysphagia may be greatly relieved in most cases without much risk. Endoscopic intubation,[17] laser therapy,[18] intraluminal radiotherapy (brachytherapy),[19] and diathermy[20] are the methods most commonly used. The choice depends to a large extent on local facilities and skill. Although they each have their particular advantages and disadvantages, all are capable of relieving dysphagia in most cases.

No doubt the prospects for cure will improve, but it will be to drugs and molecular biology that we must look. At the moment the best advice for the patient with a cancer of the oesophagus is to find a good surgeon. If he can't remove the lesion endoscopic palliation is usually simple and effective.

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Shortage of therapists

Radical solutions will be needed

The numbers of NHS staff in the professions allied to medicine (which include radiography, physiotherapy, occupational and speech therapy, and chiropody) have risen in the past decade but—in common with nurses and other skilled groups—recruitment is now proving difficult. Their trade unions have recently submitted to their pay review body a report on the likely changes in labour supply and demand over the next 10 years (Review Body for Nursing Staff, Midwives, Health Visitors and the Professions Allied to Medicine).[1] The report, commissioned from the Institute of Manpower Studies, highlighted two trends: the growth in the number of staff in the professions allied to medicine employed in the NHS and the fall in the number of potential school leaver recruits. There are now 40 000 whole time equivalent staff (two thirds in physiotherapy, radiography, and occupational therapy), and over three quarters of them are fully qualified. In the five years to 1987 their overall growth rate was 21%, and in occupational therapy it was 46%. As a result these professions have young age profiles, with between a third and a half of their members under 30, and just over four fifths are women. Rather more than a third work part time, but between the ages of 20 and 29 virtually all work full time, while those between 30 and 39 often work part time. The current rate of vacancies is 9% in physiotherapy, 16% in occupational therapy, and 8% across all professions allied to medicine.

One conclusion implied from these data is that if the recent rate of growth is to be sustained in the next 10 years then entry to professional training will need to be increased further or more staff will need to return to work in the NHS, or both. The report contrasts this picture with the projected fall in the number of school leavers: the number of girls with two or more O levels leaving school will fall to 76% of the 1986 total by 1993 and will recover to 84% of the 1986 total only in 1998.

The report's response is both predictable and disappointing. It calls for recruitment to be improved by switching to non-traditional sources of labour supply and for retention to be improved by reducing workloads and improving career prospects. More money, it claims, is the necessary lubricant to keep the machine going—for a rise in initial rates of pay, for rises in *relative* pay and benefits as an aid to retention, and for financing reduced workloads and better career prospects. As a trade union wage claim this is good healthy stuff, but as a balanced assessment of how to tackle the manpower problems of the 1990s it leaves much to be desired.

During the 1980s there has been clear evidence of the professions manipulating the labour supply to increase rather than reduce manpower difficulties. Between 1982 and 1987 the proportion of helpers to qualified staff fell—but not because of a shortage of helpers but because professional managers actively decided to reduce their contribution. In 1987 the National Audit Office criticised unilateral decisions taken by professional bodies to increase the minimum qualifications for entry.[2] By continuing to squeeze out helpers and tighten entry qualifications the professions have been able artificially to worsen their manpower prospects.

The biggest failure of this Institute of Manpower Studies report is that it recommends no changes in skills mix. Yet this has been central to the debate about nursing manpower, where improvements in education have been secured by commitments to cutting the proportion of qualified nurses and enhancing and expanding a grade of support workers. In 1987 the Public Accounts Committee urged the professions allied to medicine to get on with research into skills mix.[3] This has been resisted by some professional and trade union leaders in favour of asking the government to buy them out of trouble by improving relative pay. At last, however, these leaders seem to be beginning to accept the inevitability of generic health care assistants trained within the framework of the National Council for Vocational Qualifications. This approach will be crucial to any debate about manpower in the 1990s.

And changing skills mix is not the only possible solution. Audit is beginning to identify treatment regimens that are successful and to eliminate those that are not. Research along these lines at the Brompton Hospital into physiotherapy has challenged traditional patterns of work and shown how clinical needs may be met by fewer staff if the will is there to recognise the need for change.[4] The manpower exigencies of the NHS are beginning to force a rethinking of traditional clinical practices that can benefit the patient and the taxpayer. In this way the impending manpower crisis may have some benefit.

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