these figures are favourably influenced by the deaths of high risk patients. If a patient ruptures his aneurysm and reaches hospital alive early diagnosis and an immediate operation are vital. With a non-operative mortality of 100% there is little need for debate or delay. The patient should be anaesthetised on the operating table after all preparations for the operation are complete. The relaxation of the abdominal muscles may result in the rupture extending and dramatic hypotension. Early proximal control of the aneurysm is important, and catheters have been used before the patient is anaesthetised. 30 Interventional radiology may have an increasingly important place if it does not delay the operation.

Many deaths occur in patients who are moribund when they present, and medical ingenuity cannot help. The opportunity for improving results must lie in diagnosis before rupture, and in an ideal world a screening programme could be employed using ultrasonography or, better still, nuclear magnetic resonance. Necropsy studies suggest that three elective resections would be needed to avert one rupture. 31 Such a programme would need 12 000 operations in England and Wales 32 and cost £9000 for each life saved. 33 In the United States the cost might be $10 million. 34 More realistically, doctors must become more aware of abdominal aneurysms and palpate the abdomen of men over 50, just as they would take their blood pressure. Ultrasonography should then be used in doubtful cases and those with other cardiovascular symptoms.

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Nursing manpower

Is there a crisis in nursing manpower? The National Health Service's chief executive, Len Peach, has warned of future difficulties in recruitment and the growing work load of student nurses who have regained prominence through the Project 2000 report. 1 But after four years in which the same number of nurses has faced up to a 13% rise in workload the atmosphere remains surprisingly calm. 2

Management action is now an alternative to complaint. Techniques of measuring the need for nurses are now available: the monitor project at Newcastle Polytechnic and work in Brighton and north Lincolnshire have developed the earlier work at Aberdeen. 3 Many districts may complain of shortages, but only those that can prove their shortages with the new measures will command the respect. The Department of Health and Social Security's work on the lack of fit between nursing resources and needs has also had an impact on opinion, most recently through the report on the mix of nursing skills. 4

The nursing force is now much better educated and flexibly trained than it was. The development of postbasic training has been a success, and, although wastage among student nurses throughout their course and through exam failure is at least 30%, 5 the turnover among trained staff is probably lower than in the 1960s: more people are working as
staff nurses for a time. The British nursing profession is now a major asset to the NHS. The review body has made a good start, and the Royal College of Nursing has been giving a clear lead so that there is much less interunion rivalry. All these changes that tend to damp down crisis, although with weakening effect as turnover among trained staff is likely to rise.

The emerging local problems may be rather different from those diagnosed in the Project 2000 report. Staffing difficulties may be growing in less popular aspects of care, where enrolled nurses have made a vital contribution in the past. Professional criticism of the training of enrolled nurses is natural, but enrolment has introduced into nursing many mature entrants without formal qualifications who often serve for longer than state registered nurses. The practical result of phasing out pupal nurse training is likely to be an increased reliance on nursing auxiliaries or aides with even less training. A new deal for nursing education would certainly mean that fewer people were trained even if demographic changes did not make this inevitable. Unless the total number of nurses is to be reduced other sorts of nurses will have to provide cover, and as the number of enrolled nurses declines this will be done by nursing aides. The Project 2000 report seemed to regard the case for abolishing pupil nurse training as self evident, but the grade has grown through local initiative in a way that should command respect from reformers at the centre.

The second local crisis is likely to be stress on ward sisters and charge nurses. With fewer beds the old problems of basic cover may be reduced, but patients being more dependent and the greater complexity of hospital care put great pressure on ward sisters. They still have a surprising number of non-nursing duties, and they have the problems that nobody else wants to solve—such as how to find an ambulance within 24 hours to take a patient 50 miles. This stress presents a serious threat to the quality of care.

The third crisis is likely to be in staffing special units and wards in the south east and particularly in central London. The NHS will share the staffing problems that will face all public services in central London, and the awesome number of special units all fishing in the same staffing pond will give a special and competitive quality to the complaints that will be heard.

The first reaction to shortages of staff has been to encourage nurses who have left to return, and to recruit part time staff and mature entrants—the same methods that were used in the 1960s. These are useful steps, especially in the south east, where the new problems are closest to the old, but they need to be complemented by policies to improve staffing in unpopular aspects of care and to reduce stress on ward sisters. There could be a new emphasis on in-service training and on improving the quality in geriatric and longstay care. Some DHSS financed pilot projects would be useful.

Ward sisters must be at the centre of initiatives to improve quality of care. They need the power, the resources, and the budgets to solve the problems, time to develop skills and interests, and a pay structure that will give an incentive to improved care. The aim must be to use their time more effectively and to give them more of a chance to develop potential.

The new local problems with an immediate impact on services are likely to get much less attention nationally than the issue of changing student nurse training. The case for change is strong in the light of the continuing high wastage rate and the heavy work commitment of the trainees, and the next five years are a time of unusual opportunity for making the change. There will be a 20% fall in the relevant age group by the early 1990s, which will force intakes down and reduce the work contribution of student nurses. Training will have to be reorganised as schools become too small to be viable, and local arrangements with polytechnics and universities would be easy to organise. But unless managers and nurses can deal with the immediate service problems the case for change in training is likely to be lost yet again as health authorities resist the cost and the upheaval.

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Long term urethral catheterisation in the elderly

Incontinence and retention of urine are common in the elderly, and the apparently simple solution of urethral catheterisation is immediately attractive, particularly in patients with declining physical and mental health. But it is in this group that long term catheterisation is most difficult. The complications of infection, blocked catheters, and leakage of urine may lead to a frenetic rate of replacement, often with bigger and bigger catheters. The patient then suffers discomfort and loss of dignity, and considerable pressure is put on the community nursing services.

In a study of patients admitted to a chronic care centre in the Netherlands 16% had an indwelling catheter; yet fewer than one fifth of the catheters remained in place for the designated period of one month. Most needed replacing because of persistent blocking or leakage. Some of the catheters, all of which were originally intended for long term management of retention, could be successfully removed. Kennedy and Brocklehurst have highlighted the varied and contradictory attitudes of doctors and nurses to the complications of indwelling catheters; they also showed that many were vague about the original indications for long term catheterisation.

The common indications are incontinence or retention of urine, which may be real or imagined. Incontinence in the elderly secondary to bladder instability, immobility, and confusion is common and deserves more medical interest than simply committing a patient to life with a catheter. The patient can often be successfully managed with urodynamic investigation and conservative treatments—such as bladder training for detrusor instability and various incontinence appliances. Retention of urine and severe bladder outflow obstruction are best treated by an endoscopic operation,