

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 are 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 pupil 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.⁵ 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.⁶ 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.¹ 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.²

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 investigation³ 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,

which is rarely contraindicated with current anaesthetic techniques.

In those patients in whom long term catheterisation is inevitable most catheters require replacement in less than four weeks because of blockage or bypassing.¹⁴ There may also be more serious complications such as sepsis, but few studies have attempted to assess the risk. Hospital patients who are catheterised short term have an increased mortality because of the catheter,⁵ but the risks of long term catheterisation are more difficult to assess.⁶ Bacteriuria is unavoidable in over 90% of patients¹ and is not prevented by antiseptics and antibiotics, which encourage multiply resistant organisms. (A possible exception is that antibiotics may be used in those with proteus infection as this may rapidly block catheters with triple phosphate encrustations.) Instilling antiseptic solutions into the drainage system,⁷ and using them for local cleaning of the urethral meatus⁸ or bladder lavage⁴ are also unsuccessful in preventing bacteriuria. Bladder lavage may, however, reduce the incidence and severity of catheter bypassing by preventing debris from accumulating.^{4,9}

Opinions vary on which type of catheter to use long term. Repetitive catheterisation is traumatic and may cause false passages, urethral erosion, and strictures, and the risk of stricture formation is partly related to the toxicity of the catheter material.¹⁰ In the short term pure silicone catheters have proved superior in this respect to latex catheters.¹¹ Of greater importance in long term catheterisation, however, is the incidence or blockage, and here the advantages of pure silicone over coated or uncoated latex are less apparent.^{2,4} The success of long term catheterisation is probably more closely linked to catheter care than to the type of catheter, particularly in the community, and a small (16F) latex catheter with a 5-10 ml balloon is probably as effective as the more expensive alternatives.

The rate of catheter renewal varies between patients and is reasonably predictable for the individual.¹² Ferrie and colleagues defined two groups of patients according to the likelihood of catheter blockage or bypassing and recommended that for those who had a low incidence of complications the catheter could be checked fortnightly and changed every 8-12 weeks.⁹ For complicated cases they suggested thrice weekly bladder lavage with tap water and a change of catheter every four weeks. They also suggested spigoting the catheter during the day with three hourly emptying to prevent local trauma to the bladder and allow greater mobility.

A close relationship is needed between staff in the community and those in hospital so that specific problems such as leakage because of detrusor spasm and stone formation can be treated. The essential feature of a successful programme for long term catheter care is, however, that it is community based and dependent on district nursing staff who have specific training and expertise.⁹ If doctors and nurses think harder about who needs a long term catheter and about how to manage patients with long term catheters in the community then fewer hospital admissions will be necessary.

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Testing the sense of smell

The methods routinely used for testing the sense of smell are inadequate. Doctors may think that smell is the least important of the senses, but the patient with an olfactory disorder has a different view. He or she can no longer enjoy everyday odours and may worry about being unable to detect spoiled food, leaking gas, or a fire. Patients presenting with taste disorders also need to have their sense of smell tested because in some of them it is this that is at fault. Some patients who complain of a change in their sense of smell have serious medical conditions: intranasal or intracranial neoplasms, endocrine disorders (Turner's syndrome, Kallman's syndrome, hypothyroidism, or adrenal hyperplasia), Parkinson's disease, Korsakoff's psychosis, or Alzheimer's disease. Finally, objective assessment of smell has medicolegal importance when impairment of smell is alleged to have resulted from accident or injury.

Most patients at the moment will have their complaints of smell disorder assessed with a hastily dusted set of four bottles. These present a suprathreshold stimulus and elicit only an "all or none" response; subtle degrees of olfactory loss will be missed, and many patients will have their complaints dismissed when tested in this way. A more accurate means of assessment is necessary, but nearly a century and a half after Valentin's pioneering work¹ smell testing is still beset with technical difficulties of controlling and presenting the stimulus and of identifying and measuring the patient's response.

To present odours of known identity and intensity specialist research centres use air dilution olfactometers—complex and expensive items that need tedious and meticulous maintenance and cleaning.² Finding the best way of assessing the patient's perception of an olfactory stimulus has occupied psychophysicists for decades. One attractive proposition would be cerebral olfactory evoked potentials—analogueous to auditory and optical evoked responses—but as yet they remain an elusive goal. Responses are variable, and there are problems in differentiating olfactory from trigeminal evoked responses.

These methods are in any case impractical for routine work. An important advance on the old smell bottles has been the use of microencapsulated odorants mounted on card which are presented in a "scratch and sniff" booklet of 40 different smells (available from Sensonics Inc, 155 Hadden Avenue, Huddersfield, New Jersey 08033, USA).³ After scratching a card and smelling the odour released subjects must choose one of four possible alternative identifications. Anosmic patients get about a quarter right by chance alone;