

Amalgamation of the clinical schools is equally attractive as a process of rationalization of the use of highly trained staff and special equipment. Here, however, the potential disadvantages of size are more dangerous. The introduction of the divisional system, with rotating appointments as heads of divisions, should avoid any tendency for the growth of power structures in the European pattern where the professor can rule his department as a despot. There should be resistance, however, to any further increase in the size of the groups of clinical students taught as a unit. Clinical apprenticeship is the basis of the success of the London medical schools, and anachronistic as it may seem there is no evidence that new techniques such as topic teaching can supersede it. Indeed the new, larger clinical schools will have the chance to restore the emphasis on teaching that ought to exist in many of the junior and senior appointments to the hospital staff. Selection of candidates for lectureships has for too long been based on their abilities in research rather than in teaching. Another opportunity given by the proposed changes is one for students to undertake their elective periods in medical schools other than their own. Free interchange within the university faculty of medicine could widen the education of the teachers as well as the students.

It would be a pity, however, if the amalgamation marked the end of the individual identities of the medical schools and the loyalties they attract. Perhaps the provision of more student hostels near the medical schools could help. Oxbridge colleges manage to maintain their individuality, as do the present colleges of London University. We hope that 50 years from now it will still mean something to say of a doctor that he is a Barts or a Thomas's man.

Subnormal Hospitals

"If mental hospitals are the Cinderella of the National Health Service then hospitals for the subnormal are her neglected, illegitimate child." This comment has gone the rounds in psychiatric circles for years, but never before has its bitter cynicism been more justified.

The sorrows that have befallen our hospitals for the mentally disordered have of late come in battalions. It all began in mid-1967 with the publication of the sensational *Sans Everything*.¹ The allegations of cruelty and mismanagement made in that book led to an official inquiry, whose findings² did not by any means exonerate all the hospitals concerned. Next came a report of the Commons Estimates Committee on 21 March 1968 on the grave situation created by the lack of beds in the special hospitals. The *Times* in a leader³ the following day wrote: "Broadmoor, like the other special hospitals, cannot say no to a patient for whom a court has made an order. Hence the appalling overcrowding which makes a mockery of attempts at treatment." Harperbury then hit the headlines, followed by the hammer-blow of the Ely report,⁴ with its disturbing revelations. Last week the situation reached its nadir with the much-publicized five-day inquest at Bristol into the deaths of two patients at Farleigh Hospital, Flax Bourton, Somerset, in December 1968 (see report at p. 481). Many aspects of this tragic

case disquieted more than the nine-man jury; and, indeed, the foreman advised that all documents should be referred to the Director of Public Prosecutions and to the Secretary of State for Health and Social Security.

Running through all these reports, official and unofficial, is a tale of antique buildings, overcrowding, and understaffing. An increasing reliance on overseas nurses and doctors unfamiliar with the cultural background of their patients and unable to communicate fully with them has been another difficulty.

From a clinical standpoint the division between mental illness and subnormality hospitals is largely a fiction—as witness hospitals, of which Ely is one, that house both. What determines the admission to any one of these institutions is usually a social crisis created by behaviour intolerable to the family or to society at large. The most serious acts of deviant behaviour in the mentally abnormal—murder, manslaughter, and grievous bodily harm, for example—result in a court order being made committing the culprit to one of the special hospitals. Admitted, too, to these maximum security hospitals is a bare minimum of cases from conventional hospitals, even then only after careful scrutiny of each application by the Health Department. But under the provisions of Part V of the Mental Health Act, 1959, an ever-increasing number of quite dangerous patients are committed by the courts to conventional hospitals that are neither geared nor staffed for their custody or care. Friction between staff and these patients is almost inevitable.

There are other hazards commonly associated with mental disorder that threaten the safety and wellbeing of staff—and fellow-patients. As examples may be given the unpredictable outbursts of aggressive behaviour of the schizophrenic, the sudden fury of the epileptic, and the explosive and often vicious aggressiveness of the psychopath. Not so hazardous in physical terms, but nevertheless offensive, are the grossly abnormal habits found mostly in subnormal patients. Incontinence, faeces-smearing, together with a variety of degraded sexual practices, are seen against a cacophonous background of banging and screeching. It takes strong stomachs, cloth ears, insensitive noses, and above all dedication to their calling for staff to be able to tolerate such continuing assaults on their senses and sensibilities. But with the diminution in the number of staff who can take their share of the burden it is not surprising that at times tempers become frayed and patience exhausted. What may be accepted as a professional commitment in small doses can very easily become a disgusting chore in large.

How to improve this deteriorating situation is a complex problem. That the damage to the reputation of our mental hospitals is serious cannot be gainsaid. But there is an even greater danger in that hospitals of unimpeachable character may come under suspicion, with disastrous results to the morale of their staff. It is imperative that a fourth English special hospital be provided so that conventional hospitals can be relieved of the insupportable burden of those who are dangerous because of mental disorder and criminality. The modernization of antique buildings if not their actual reconstruction must be speeded up. Commissioners on the

¹ *Sans Everything: A Case to Answer*. Presented by Barbara Robb, 1967. London, Nelson.

² *Findings and Recommendations following Enquiries into the Allegations concerning the Care of the Elderly Patient in Certain Hospitals*, 1968, Cmnd. 3687. London, H.M.S.O.

³ *The Times*, 22 March 1968.

⁴ *Report of the Committee of Inquiry into Allegations of Ill-treatment of Patients and other Irregularities at the Ely Hospital, Cardiff*, 1969, Cmnd. 3975. London, H.M.S.O.

⁵ *British Medical Journal*, 1969, 2, 6.

¹ *Royal Commission on Medical Education. Report*, 1968. London, H.M.S.O.

lines of the late Board of Control should be appointed without delay.⁵ But, above all, there must be immediate attention given to the improvement of the staffing structure of nurses, doctors, and ancillary workers, and every inducement given by whatever means to improve recruitment. Cinderella can be transformed, but to turn a kitchen slut into a princess costs a lot of money. The money can and must be found if a once splendid service is itself to be rehabilitated.

Transverse Myelitis and Heroin Addiction

Acute inflammation of the spinal cord is fortunately an uncommon illness. When clinical evidence of damage is restricted to a few segments, it is traditionally designated transverse myelitis to distinguish it—when the level progressively rises—from ascending myelitis.

The clinical picture is distinctive. Severe local spinal pain often heralds the development of neurological symptoms and signs. Paralysis, which is usually flaccid, then appears in the lower limbs and ascends to the trunk. Sensory loss of varying severity is in clear-cut segments, often separated from unaffected dermatomes by a girdle of hypersensitivity. Acute retention of urine may be among the presenting symptoms, and subsequently defective control of bladder and bowel usually appears. In the acute phase tendon and plantar reflexes may be completely lost, but frank evidence of bilateral upper motor neurone lesions later becomes clear. It is imperative to exclude compression of the spinal cord, and there should be no delay in submitting the patient to myelography. During the acute phase the cord may be demonstrably swollen, and the cerebrospinal fluid contains an excess of cells and protein. At necropsy the affected segments of the cord show areas of demyelination, sometimes with severe destruction of tissue. In the early stages marked inflammatory reactions with lymphocytic cuffing of vessels may be apparent. In cases of longer duration, scarring and cavitation with neuroglial sclerosis is the dominant feature.

There are many possible causes of this catastrophic syndrome. It may complicate smallpox, measles, or chicken-pox and may be provoked by prophylactic vaccination. In a young adult multiple sclerosis may be suspected, and examination may give evidence of previous symptomless exacerbations such as pale optic discs or nystagmus. Though syphilitic myelitis is now rarely seen in the United Kingdom, acute vascular or ischaemic lesions of the spinal cord from degenerative arterial disease are not uncommon among the elderly. Toxic reactions to drugs have been well documented. In the past arsenicals, sulphonamides, and even contrast media have caused the condition. A recent report suggests that heroin addiction must also be considered.

Septic cerebral artery emboli, status epilepticus, meningitis, and injection neuropathies are neurological complications seen in addicts who administer heroin to themselves in unsterile conditions. R. W. Richter and R. N. Rosenberg have now described four patients who developed acute transverse myelitis. Three of them had not taken drugs for several

months, and myelitis developed abruptly, soon after resorting to further intravenous heroin. In one patient, who died five weeks after resuming heroin, extensive necrosis of the spinal cord in the lower thoracic region was found at necropsy. It is well known that the "pusher" dilutes his drugs and that the addict has no means of knowing the strength of his injection except by the "kick" he receives. Thus it cannot be established whether the neurological damage is attributable to direct toxicity of heroin or to an adulterant. The fact that acute transverse myelitis developed after a period of abstinence might indicate a neurotoxic hypersensitivity reaction. It would seem that yet another miserable complication must be added to the list of physical hazards associated with heroin addiction.

Management of Primary and Secondary Hyperaldosteronism

Primary aldosteronism is an important cause of hypertension,¹ though the frequency of this association may have been over-emphasized.² Patients with ischaemic renal disease³ and accelerated and malignant hypertension⁴ may also have raised aldosterone secretion rates. And secondary hyperaldosteronism may contribute to the clinical picture of the oedema found in cirrhosis of the liver and renal disease and lead to the partial failure of diuretic treatment in some patients with congestive cardiac failure.

Thus a potent aldosterone antagonist might be an effective therapeutic agent. Of the various drugs introduced for this purpose only spironolactone fulfils the criteria of being a true potent aldosterone antagonist⁵ useful clinically. Another agent, triamterene, which was once considered to oppose the action of aldosterone directly,⁶ is now known to act on the distal tubular mechanism of the kidneys independent of any aldosterone antagonism.⁵

Though spironolactone has been advocated from time to time for the management of hypertensive patients, a recent paper⁷ is critical of the results of such treatment. Twenty patients with primary aldosteronism responded to spironolactone with reversion of the blood pressure to normal, but the frequency of such side-effects as gynaecomastia, decreased libido and impotence in the male, and menstrual irregularity and mammary discomfort in the female eventually led to

¹ Conn, J. W., *Journal of Laboratory and Clinical Medicine*, 1955, 45, 3.

² Kaplan, N. M., *Annals of Internal Medicine*, 1967, 66, 1079.

³ Laidlaw, J. C., Yendt, E. R., and Gornall, A. G., *Metabolism*, 1960, 9, 612.

⁴ Laragh, J. H., *Medical Clinics of North America*, 1961, 45, 321.

⁵ Liddle, G. W., *Annals of the New York Academy of Sciences*, 1966, 139, 466.

⁶ Wiebelhaus, V. D., Weinstock, J., Brennan, F. T., Sosnowski, G., and Larsen, T. J., *Federation Proceedings*, 1961, 20, 409.

⁷ Spark, R. F., and Melby, J. C., *Annals of Internal Medicine*, 1968, 69, 685.

⁸ Cranston, W. I., and Juel-Jensen, B. E., *Lancet*, 1962, 1, 1161.

⁹ Winer, B. M., Lubbe, W. F., and Colton, T., *Journal of the American Medical Association*, 1968, 204, 775.

¹⁰ New, M. I., and Petersen, R. E., *Journal of Clinical Endocrinology and Metabolism*, 1967, 27, 300.

¹¹ George, J. M., Gillespie, L., and Bartter, F. C., *Annals of Internal Medicine*, 1968, 69, 693.

¹² Ross, E. J., *Clinical Pharmacology and Therapeutics*, 1965, 6, 65.

¹³ Radó, J. P., Marosi, J., Takó, J., and Dévényi, I., *American Heart Journal*, 1968, 76, 393.

¹⁴ Sherlock, S., Senewiratne, B., Scott, A., and Walker, J. G., *Lancet*, 1966, 1, 1049.

⁵ Richter, R. W., and Rosenberg, R. N., *Journal of the American Medical Association*, 1968, 206, 1255.