

case with the help of psychologists, neurologists, teachers, etc.

In order to provide an early effective service, the job of "looking after" a mentally handicapped child or adult must be removed from the auspices of the National Health Service and entrusted to each county special education department, which will run special schools with residential places for these children. Mentally handicapped adults require residential hostels along with "sheltered workshops" where they can earn a fair wage commensurate with their productive capacity. Thinking and behavioural disorders developing in these two groups of people should then be treated by a psychiatrist as with any other group. If such a patient cannot return to his residential hostel, then he or she will be taken into a psychiatric hospital for long-term or short-term treatment according to the medical necessity. His or her return to the original residential setting should remain a distinct possibility at all times.

I think the time has come to reconsider and reform the mental handicap service in this country to make it more productive (both in the clinical and in the monetary sense) and to minimise waste.

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Royal organs

SIR,—Your leading article "Renal transplantation in the 1980s" (23 February, p 503) points to the continuing difficulties in obtaining a satisfactory supply of cadaveric kidneys and the same presumably applies to other useful donor organs. I put forward a suggestion which, had it been taken up, might have improved matters.¹

During the past few centuries the British Royal Family have at times exercised a considerable influence on medical practice. Even if we leave aside such interesting antiquities as the royal touch, Queen Victoria made anaesthesia in childbirth respectable literally overnight, while Edward VII may have had a rather similar effect on the diagnosis of appendicitis.

If any member of the Royal Family were to carry a donor card and publicise the fact, might not this increase the willingness of the public to donate and of doctors to ask the right questions at the right time? Old taboos seem to disappear more quickly when they are broken by leaders of a society. There is also the point that if, through the Royal Warrant, the Royal Family endorse the products of tobacco companies, surely they can spare a little support for procedures which may sometimes be useful in treating tobacco-induced diseases.

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¹ Brewer C. *Gen Pract* 17 March 1978:31.

New scheme for organ donors

SIR,—You will know that the Medic Alert Foundation has recently launched a new scheme to enable members of the public who wish to be organ donors to wear a bracelet or necklet indicating this. We were interested to read your leading article (16 February, p 427) on the whole transplant problem, but

felt that a mention might have been made of the Medic Alert system as we believe that this, if widely supported, would greatly increase the harvest of organs for transplantation.

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Volkman's ischaemic contracture

SIR,—I would like to draw attention to one point which was made in your recent excellent leading article on Volkman's ischaemic contracture (16 February, p 430). Although it is certainly important to examine for nerve function in the early stages for diagnosis, it is irreversible damage to muscle, not nerve, which is the most important feature of ischaemia of any limb. Seddon¹ noted that the vulnerability of nerve is considerably less than that of muscle. It is the function of nerves that is rapidly affected by ischaemia, as was shown by Lewis *et al* in 1931.² Lundborg³ has clearly shown that the intraneural microcirculation recovers completely after six to eight hours of circulatory arrest. Muscle fibres show changes after as short a time as one hour,⁴ and after six to eight hours irreversible changes will occur.⁵

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- ¹ Seddon H. *Br Med J* 1964;ii:1587-92.
² Lundborg G. *Scand J Plast Reconstr Surg* 1970; suppl 6.
³ Lewis T, Pickering G, Rothschild P. *Heart* 1931;3; 16:1-31.
⁴ Patterson S, Klenerman L. *J Bone Jt Surg* 1971; 61B:178-83.
⁵ Nolan B, McQuillan WM. *Br J Surg* 1965;52: 559-65.
⁶ Sharp A. *Med J Aust* 1964;51:210-4.

Antibiotic treatment for gangrenous and perforated appendix

SIR,—Mr D J Pinto and Dr P J Sanderson (2 February, p 275) make recommendations for prevention of wound infection in patients with gangrenous appendix that are irrational and the recommendations for prevention of wound infection in patients with perforated appendix are inadequate.

Treatment with metronidazole for five days reduced wound infection in patients with gangrenous appendix to 4.5%. This rate is marginally lower than the wound infection rate in their patients with normal or inflamed appendix, whether untreated controls or treated with metronidazole perioperatively, in whom the wound infection rates were 7.7% and 5.2% respectively. As they accept these latter wound infection rates and advise no antibiotics for such patients, it is surely irrational, despite the title of their paper, to recommend additional antibiotics for the regimen in gangrenous appendix, in which a lower wound infection rate had been demonstrated.

In perforated appendix wound infection rates commonly exceed 50% and their recommendation of full-spectrum systemic antibiotics for five days is essential. However, it is surprising that the advantages of intraoperative antibiotic peritoneal and wound lavage^{1,2} have been overlooked again,^{3,4} and until this technique is widely applied I foresee little

reduction in the alarmingly high rate of wound infection in patients with perforated appendix.

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- ¹ Noon GP, Beall AC, Jordan GL, Riggs S, De Bakey ME. *Surgery* 1967;62:73-8.
² Stewart DJ, Matheson NA. *Br J Surg* 1978;65:54-6, 446.
³ Anonymous. *Br Med J* 1979;ii:691.
⁴ Stewart DJ. *Br Med J* 1979;ii:1364-5.

Antibiotics in appendicectomy

SIR,—The conclusions reached by Mr D J Pinto and Mr P J Sanderson in their interesting paper (2 February, p 275) bear further scrutiny and analysis. In keeping with the practice adopted in several recent studies,¹⁻³ metronidazole was given as a suppository one hour before surgery, so that peak blood levels would be reached at the time of contamination of the wound. Ampicillin, however, was given intramuscularly preoperatively after the appendix had been brought to the surface, and therefore after it would have impregnated the wound with bacteria in its passage to the exterior. Not only was ampicillin a non-starter on this count but it was also stuck with the unfair disadvantage of having to cope with twice as many perforated appendices (16 as against eight for metronidazole).

Having, however, analysed their data from this protocol the authors go on to recommend that if a gangrenous or perforated appendix is encountered metronidazole should be given intravenously during the operation, together with cephalosporin, a chemotherapeutic regimen which bears no relation to that given to their patients.

Other forms of therapy^{4,5} compare favourably with the wound infection rate of 16% in patients with perforated appendicitis receiving metronidazole in this trial and clearly an improvement on this figure must be shown in a controlled study before a new antibiotic regimen is recommended.

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- ¹ Willis AT, Ferguson IR, Jones PH, *et al*. *Br Med J* 1976;ii:318.
² Rodgers JD, Ross P, McNaught W, Gillespie G. *Br J Surg* 1979;66:425-7.
³ Salem RJ, Johnson J, Devitt P. *Br J Surg* 1979;66: 430-1.
⁴ Pollock AV, Evans M. *Br J Surg* 1977;64:322-5.
⁵ Pollock AV, Froome K, Evans M. *Br J Surg* 1978;65: 76-80.

SIR,—As a cost-conscious surgical senior registrar I spend my time trying to coax SHOs into doing fewer out-of-hours tests and using cheap drugs. Consequently I was concerned to find no reference to cost in the consultant surgicopathological advice from Northwick Park Hospital on antibiotic therapy in gangrenous appendicitis (2 February, p 275). Mr D J Pinto and Dr P J Sanderson recommend metronidazole 500 mg intravenously + cephalosporin 1 g intramuscularly every eight hours for five days, but also say that metronidazole may be given by suppository.

A telephone call to our pharmacy confirms the following prices for metronidazole: one bottle 500 mg (intravenous)—£6.40; one suppository 500 mg (per rectum)—33p; two 200-mg tablets (oral)—15p. There is a twentyfold difference between the first two.

Although a single preoperative intravenous dose of metronidazole may be countenanced,