

to meet the demands of an increasing number of persons in the population aged 75 years or more.

There are data that indicate that the demands are likely to be extensive. The consultation rate in general practice is 451 per 100 population for males aged 75 years or more compared with 256 for males of all ages; the figures for females are 446 per 100 compared with 343.¹ The older age group accounts for 20.9% of the average number of hospital beds used daily by males and 40.7% by females (excluding maternity beds and psychiatric hospitals). Community surveys (for example, that by Harris²) have found that between 30 and 40% of persons aged 75 years or over are impaired physically. It is essential that co-ordinated plans are made now between the N.H.S., personal social services, and housing authorities to meet the present and foreseen needs of the elderly.

Expenditure on housing is forecast to increase substantially in the next three years.³ If the problems of the N.H.S. and related social services are not to be compounded and the increase in community care not frustrated local authorities must increase the number of dwellings provided by them that are suitable for disabled and elderly people. Surveys have shown that a large number of these elderly people are prepared to move house, thus releasing accommodation for others at the same time as easing some of their own physical and self-care difficulties. Your leading article, quite rightly, sounds a warning about the cut in the planned rate of increase in expenditure on the personal social services. The increase in expenditure on housing is to be welcomed—and watched, for failure here will have serious repercussions on the health and personal social services.—I am, etc.,

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¹ Office of Population Censuses and Surveys, *Morbidity Statistics from General Practice, Second National Study, Studies on Medical and Population Subjects No. 26*. London, H.M.S.O., 1974.

² Office of Population Censuses and Surveys, *Handicapped and Impaired in Great Britain*, by I. A. Harris, London, H.M.S.O., 1971.

³ House of Commons, *Public Expenditure to 1978-79*, Cmnd. 5879, London, H.M.S.O., 1975.

Financing the Health Service

SIR,—The sudden cessation of major building work at Leeds, St. Mary's, The London Hospital and no doubt in other large hospitals is indicative of a serious defect in the method by which the Department of Health and Social Security deals with the money it receives from the Treasury. It is inescapable that at department level, but not at regional level, there is insufficient distinction between money for capital works and that for recurrent expenditure. The two should never be confused.

An increase in recurrent expenditure caused by inflation and a sudden reduction in Government spending has been dealt with in the D.H.S.S. by a savage cut back in agreed capital expenditure. This is the real cause of "Leeds Infirmary blues." The solution is clear. The whole cost of building projects should be allocated to the appropriate authority at the time of consent to

the building. Indeed it would be salutary for the authority to be given the money outright, thus providing a real sanction against last-minute expensive alteration of plans.

The Department of Trade and Industry manages its affairs much more realistically than does the D.H.S.S. A grant is made to an ailing industry and that is that. There is no question of telling the workers' co-operative at Meriden that they can have £5m. but after one year and the expenditure of only £1m. telling them that they can have nothing further.

Of course in the first four years of the change of policy, assuming that four years is the average time from laying foundations to completion of building, some projects would have to be postponed, but after that the progress of capital works would be sustained and the Treasury would have to face the realities of inflation in the N.H.S. as it does in other departments of state. It would be unable to solve its difficulties in recurrent expenditure by raiding sums allocated and agreed for capital works, as at Leeds, because these would have been paid for already.—I am, etc.,

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Unusual Diathermy Hazard

SIR,—We report an unusual hazard which resulted in three patients receiving diathermy burns during general anaesthesia. The sites of the burns in all cases were the four contact points of E.C.G. electrodes attached to Videograph E.C.G. oscilloscopes used as monitoring devices. The accidents occurred in different operating theatres using different diathermy machines and different oscilloscopes. In each case the indifferent electrode of the diathermy was a large flexible plate attached firmly to the mid thigh. The E.C.G. electrode contacts were made by metal discs 1 cm in diameter mounted on adhesive plaster (as supplied by Dracard Ltd.) and skin contact was by small blobs of E.C.G. paste. In the three cases there was prolonged use of the diathermy.

Seemingly the burns occurred as a result of small zones of high density current passing through the E.C.G. contacts, despite apparently good surface contact of the skin with the indifferent electrode of the diathermy, and the excessive heat was the consequence of prolonged and intensive use of the diathermy. The good skin surface contact of the diathermy plate and its electrical continuity was confirmed by two experienced physicists. The diathermy machine was a modern one with an alarm system for detecting failure of the continuity of the connexion to the indifferent electrode plate. This suggests that the margin of safety of the flexible diathermy plate may not, despite visually good skin apposition, be adequate to safeguard the patient when high diathermy currents are used in conjunction with small E.C.G. contact discs—that is, the leakage current through these contacts may still be sufficiently great to cause harm.

The Dracard E.C.G. contacts are very good and for routine use they provide consistently better electrical continuity between the patient and the E.C.G. cable leads than do the more traditional large metal plates

with screw-in leads. They need less E.C.G. salt paste and result in less skin irritation than do the traditional plates. They are also conveniently quick to apply. Therefore, rather than abandon the use of these electrode discs, we recommend that each lead of E.C.G. cables used with monitoring devices during anaesthesia should have a 10 k Ω resistor placed in series with the leads close to the patient end of the cable, as is already done in leads supplied by some manufacturers. This might cause some minor degradation of the E.C.G. signal, but that is a small price to pay for safety.—We are, etc.,

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E.C.G. Abnormalities Associated with Raised Intracranial Pressure

SIR,—It was with interest that we read the careful study by Dr. S. J. Jachuck and others (1 February, p. 242) on the effects of rising intracranial pressure on the electrocardiogram. We have shown that, though E.C.G. abnormalities are common in patients with strokes, most of these patients do have significant cardiac disease on histological examination.¹ With these facts in mind it is noteworthy that the only young subject (case 5) was found to have no E.C.G. abnormality other than a notched T wave, even when his C.S.F. pressure rose to 85 mm Hg, whereas cases 1 and 2, who were middle-aged men, developed S-T changes in conjunction with tachycardia.

We suggest therefore that though the authors have made a good case for the close correlation of U-wave changes with raised intracranial pressure, the S-T changes found may be more directly related to coronary artery disease.—We are, etc.,

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¹ Tomkin, G., Coe, R. P. K., and Marshall, J., *Journal of Neurology, Neurosurgery, and Psychiatry*, 1968, 31, 250.

Lumbar Puncture

SIR,—In your leading article on this subject (4 January, p. 3) the statement that "examples [of the need to include lumbar puncture in the management of neurological diseases] include the decision to give anti-coagulants to a patient with a stroke in evolution" implies that if blood is not present anticoagulants may be given. Post-mortem experience of strokes shows that the absence of blood in the spinal fluid is no guarantee that a haemorrhage has not occurred. Indeed, it has been stated that in cerebral haemorrhage the spinal fluid is bloody in only 80% of cases.¹

Furthermore, it was pointed out by Hurwitz² that in stroke in evolution "the differential diagnosis between infarction,