lar disease has been emphasized,[21] as also the value of hypotensive therapy in such cases.[26]

[1] Morgagni, G. B., *De sedibus et causis morborum*. Venice. 1761.
[2] Graves, R. J., *Clinical Lectures on the Practice of Medicine*. London, New Sydenham Society, 1884.
[3] Virchow, R., *Archiv für pathologische Anatomie und Physiologie und für klinische Medizin*, 1847, 1, 272.
[4] Hicks, S. P., and Warren, S., *Archives of Pathology*, 1951, 52, 403.
[5] Yates, P. O., and Hutchinson, E. C., *Medical Research Council, Special Report Series*, 1961, No. 300.
[6] Blackwood, W., Hallpike, J. F., Kocen, R. S., and Mair, W. G. P., *Brain*, 1969, 92, 897.
[7] Schwartz, C. J., and Mitchell, J. R. A., *British Medical Journal*, 1961, 2, 1057.
[8] Martin, M. J., Whisnant, J. P., and Sayre, G. P., *Archives of Neurology*, 1960, 3, 530.
[9] Faris, A. A., Poser, C. M., Wilmore, D. W., and Agnew, C. H., *Neurology (Minneapolis)*, 1963, 13, 386.
[10] Brice, J. G., Dowsett, D. J., and Lowe, R. D., *Lancet*, 1964, 1, 84.
[11] Fazekas, J. F., Yuan, R. H., Callow, A. D., Paul, R. E., and Alman, R. W., *New England Journal of Medicine*, 1962, 266, 224.
[12] Fetterman, G. H., and Moran, T. J., *Archives of Pathology*, 1941, 32, 251.
[13] Rapela, C. E., and Green, H. D., *Circulation Research*, 1964, 15, Supplement No. 1, 205.
[14] Harper, A. M., *Journal of Neurology, Neurosurgery, and Psychiatry*, 1966, 29, 398.
[15] Waltz, A. G., *Neurology (Minneapolis)*, 1968, 18, 613.
[16] Russell, R. W. R., and Green, M., *British Medical Journal*, 1971, 1, 646.
[17] Behrman, S., *British Journal of Ophthalmology*, 1967, 51, 269.
[18] Fieschi, C., *et al.*, *Neurology (Minneapolis)*, 1968, 18, 1166.
[19] Kogure, K., Fujishima, M., Schneinberg, P., and Reinmuth, O. M., *Circulation Research* 1969, 24, 557.
[20] Meyer, J. S., *et al.*, *Stroke*, 1970, 1, 219.
[21] Acheson, J., *Quarterly Journal of Medicine*, 1971, 40, 25.
[22] Castaigne, P., Lhermitte, F., Gautier, J. C., Escourolle, R., and Derouesné, C., *Brain*, 1970, 93, 231.
[23] Charcot, J. M., and Bouchard, C., *Archives de Physiologie Normale et Pathologique*, 1868, 1, 110.
[24] Green, F. H. K., *Journal of Pathology and Bacteriology*, 1930, 33, 71.
[25] Russell, R. W. R., *Brain*, 1963, 86, 425.
[26] Carter, A. B., *Lancet*, 1970, 1, 485.

Drugs for Ceylon

Nearly all the technically advanced countries and many of the undeveloped ones too help their poorer citizens to receive medical aid that would otherwise be beyond their reach. Whether from skill, luck, or indolence, we do not all have the same purchasing power, and different communities have evolved an enormous variety of social devices to mitigate the harshness of poverty and sickness. But where countries instead of individuals are concerned many remain severely handicapped in the world's markets.

An adverse balance of trade has for some years bedevilled Ceylon's capacity to buy abroad some of the goods she needs, and by 1970 a crisis had overcome her foreign exchange. It was in these circumstances that her Government invited Dr. S. A. Wickremasinghe, a general practitioner as well as a member of Ceylon's parliament, and Professor S. Bibile, professor of pharmacology in the medical faculty of Ceylon University, to inquire into the import, manufacture, and distribution of drugs. They were also asked to recommend steps to ensure that drugs are available to people who need them in adequate quantities and at reasonable prices. At page 757 of the *B.M.J.* this week they give a short account of the task and their conclusions. As they rightly point out, the cost of drugs has provoked the authorities even in such a relatively well-off country as Great Britain to look for cheap sources of supply, and here too doctors are accustomed to advice, propaganda, threats, and even retribution with the aim of persuading them to prescribe economically. But Wickremasinghe and Bibile's report takes the matter a stage further. Doctors in Ceylon's State hospitals may now prescribe only from an approved formulary, and a committee meets regularly to amend its contents if necessary. The next step, as the authors see it, is to have the formulary committee deciding on a list of drugs for the whole country, private as well as State practice.

In choosing which drugs to approve and which to reject the committee's evidence "came largely from British publications." The well-conducted clinical trials held in this country together with the critical look often cast on prescribing practices owing to the particular character of our health service make that understandable. Furthermore, Britain too has not always been able to import as much of a drug as she would wish: streptomycin soon after the second world war is a case in point. But whether the complete replacement of phenacetin by paracetamol can be confidently supported by reference to the nephropathy associated with the former drug is perhaps debatable and certainly points to the kind of problem the formulary committee must tackle. Which is the best of several comparable drugs must be difficult to decide when the winner is to be the only one that anyone in the country may receive. Only a desperate economic situation could make such a restriction seem reasonable—but that clearly is the plight of Ceylon.

As well as restrictions on the import of drugs and a ban on the advertising of them Wickremasinghe and Bibile advocate the purchase of cheap drugs made by circumventing the patent law. Here again they can draw on Britain for a precedent, for some hospitals in this country were at one time ordering drugs from foreign sources where they were believed to be manufactured without a licence.[1] The Minister of Health of the day instructed them to stop that practice and tried another, equally questionable, approach to economical purchasing by invoking the Patents Act 1949. This Act enables a Government department or a person authorized by it, to "make, use and exercise any patented invention for the services of the Crown" (with various provisos). The Minister then was Mr. Enoch Powell, and the Ministry issued what was intended to be a reassuring statement to the effect that the Government did not believe its action would prejudice patent protection or research. However, in the end little came of this particular economy measure.

Though Ceylon's need to obtain sufficient drugs at a price she can pay is clear, two obvious dangers attend the course advocated. The first is that some of the drugs supplied will be of inferior quality. This was found to be so in Britain, for the fact remains that a well-known firm's brand name on a product is the best guarantee there is of its purity, efficacy, and potency. Government testing, such as is recommended for Ceylon, is not an adequate substitute. Secondly the drug revolution that has transformed medical practice in the last 20 years and given new life and health to millions of people has been largely the work of industrial firms acting under patent law. If evasion of that law is generally encouraged, the consequences are likely to be harmful to medical advance. Yet the drug companies themselves have responsibilities in the service of mankind such as are not laid on the manufacturers of many other commodities, and the richer countries also have responsibilities to the poorer, which they fulfil to a greater or less extent through foreign aid schemes. What each should never cease to consider is whether their contribution to advancing the health of developing countries is enough.

[1] *British Medical Journal*, 1961, 1, 1521.