

cerebral blood flow but it is then hardly enough to state that it is an impression that regional blood flow and blood volume are diminished in patients with cerebrovascular insufficiency and headaches. His claim that such measurements have 'considerable clinical usefulness' is not convincingly sustained. Welch and Meyer, in a very adequate description of disordered cerebral metabolism following ischaemia are more cautious, and it is clear that both such studies, valuable though they are, will remain in the research laboratory for some time to come.

Miller Fisher's account of the anatomy and pathology of cerebrovascular disease is, as anticipated, comprehensive. No mention, however, is made of the possible role of microaneurysms in hypertensive cerebral haemorrhage, for he prefers his own view that cerebral haemorrhage occurs at a site of lipohyalinosis in a cerebral vessel. Kannel and Woolf review very adequately the risk factors in 'atherothrombotic' disease which have been recognised in the Framingham epidemiological study. Oddly enough, the 'Japanese story' of a high variation in the incidence of cerebral haemorrhage in Japanese in Japan compared with those Japanese domiciled in the United States is still retailed. Kunkle's review of the evidence for this should surely put an end to this myth.

Although containing much useful material, it is unlikely to have a wide appeal to physicians who are concerned with the practical management of cerebrovascular disease.

E. C. HUTCHINSON

DRUG TREATMENT OF EPILEPSY By A. Richens. (Pp. 176; illustrated; £3.80.) Kimpton: London. 1976.

Emphasising the social impact of epilepsy and its disruptive consequences, the 1969 official report, *People with Epilepsy*, visualised a large-scale welfare operation controlled by a multidisciplinary diagnostic team. The general practitioner would be responsible for continuing care, supported by specialist clinics. The actual therapy of epilepsy, the control by drugs of the frequency and severity of fits, was dismissed in two short paragraphs. Though warned of the folly of blind rewriting of prescriptions, practitioners were given no advice about drugs and dosage.

Dr Alan Richens is an exponent of the pharmacokinetics of anticonvulsants and has published an impressive list of studies of their 'life cycle' in patients. This important book is a summary, in clear but not always sparkling language, of his experience of therapy based on personal observations and measurements. Although much of his own work has been on phenytoin and its derivatives and adjuvants,

in this book he draws freely on the mass of relevant literature to illustrate key points in his argument. All anticonvulsants currently in use are surveyed.

To make the most of his drugs the doctor needs to know the details of their physical and chemical behaviour in human tissues: protein-binding and the fraction of 'free' drug, concentration in the various body fluids, enzyme induction and breakdown, competitive inhibition, changes in tissue response; or toxic effects on the nervous and other systems, interference with folate, electrolyte and water metabolism and with endocrine function—insight into these and similar events makes a science of the therapeutic art. Their study leads to those pharmacokinetic principles with which Dr Richens begins his book.

Chapters follow on the diagnosis and therapy of conventional types of epilepsy including the management of epileptic status. There is no dogmatism: the author is almost at fault in leaving the reader with too free a choice. He ends with two excellent chapters on the complications of therapy, drug interactions and iatrogenic disorders, and, finally, with an account of the planning and execution of a controlled clinical trial. His own trial of sodium valproate, subsequently published, was a model of its kind.

This book is a lesson in the art of scientific medicine with the measurement of drug levels playing a restrained but sometimes critical role. Perhaps Dr Richens will succeed, where *People with Epilepsy* failed, in reducing the number of fits per person per year by the simple device of measurement, and by persuading his contemporaries to measure likewise.

C. E. C. WELLS

ATLAS OF ELECTROENCEPHALOGRAPHY IN COMA AND CEREBRAL DEATH By Donald R. Bennett, John R. Hughes, Julius Korein, Jerome K. Merlis, and Cary Suter. (Pp. 254; illustrated; \$66.) Raven Press: New York. 1976.

This atlas is, in the words of the authors, an attempt to share their experience of a total of over 2000 EEGs recorded in patients admitted to a collaborative study of cerebral death by the National Institute of Neurological Diseases and Strokes. They hope it will be a useful reference for electroencephalographers, technologists, and other professional personnel dedicated to the care of critically ill patients, and an aid to surmounting difficulties encountered when recording EEGs outside the laboratory—that is, in the Intensive Care Unit. Of the 244 pages in this book, all but 20 contain full page illustrations of the EEGs in comatose patients, and those who are designated as showing electrocerebral silence. The book is divided into six chapters with a short introduction outlining the aims of the book,