

prominent in Olympic counsels, the association's policy statement is bound to command respect and attention. Whether it will prove any easier to control doping in athletics and other competitive sports than it is proving in horse and greyhound racing remains to be seen. Undoubtedly an unequivocal climate of opinion against the practice will help. But where the prizes are high, in either prestige or money, and where big sums are wagered, sportsmen will always be subject to temptation and pressures to use less than sporting tactics to gain the victory. Doping "with intent" certainly falls into this category, whatever may be its medical consequences, and we therefore welcome this forthright attempt to put an end to it.

Round-the-Clock Blood-pressure

Diurnal variations in blood-pressure have long presented a problem to the physician, whether in the diagnosis of hypertension or the estimation of its severity. New methods of automatic recording at frequent intervals¹⁻³ have now made it possible to study variations of pressure throughout the 24 hours without the presence of a nurse or a physician. Using an oscillometric method of recording with a double pneumatic cuff automatically inflated every five minutes, D. W. Richardson and his colleagues have made important observations on normal subjects and hypertensive patients.

Large diurnal variations occur, both in health and in hypertension, the lowest pressures being usually recorded during sleep. Eight healthy subjects were studied, and five of these were found to have systolic blood-pressures below 80 mm. Hg during sleep. High pressures were also recorded in these normal subjects at some time during the day, systolic pressures exceeding 140 in three and diastolic values exceeding 90 mm. Hg in all eight. With one exception the average highest diastolic blood-pressure during a 24-hour record exceeded the average lowest systolic pressure, a fact that underlines the extent of the 24-hour variation.

The same considerable decline in pressure was seen in all of the 30 hypertensive patients during sleep. In fact, in more than half of the hypertensive patients the pressure fell to levels that would be accepted as entirely normal on a casual day-time reading. Once again, with three exceptions, the highest mean diastolic pressure exceeded the lowest mean systolic pressure. No difference was found in the 24-hour pattern of a rise during the day and a fall during sleep between those with renal hypertension and those with "essential" hypertension, though the average magnitude of the pressure change was less in patients with renal disease.

Blood-pressures were higher in the late afternoon and evening than in the morning. During the night the lowest levels were recorded during the early hours of sleep. The relation of the blood-pressure to the depth of sleep was studied by means of the electroencephalogram, the greatest fall of

pressure occurring when medium deep sleep was present. These findings in general confirm earlier observations of a gradual rise during the day and rapid decrease during the early hours of sleep.⁴⁻⁶

What then is the meaning of the so-called "basal" blood-pressure and what significance, if any, should be attached to the casual reading? The basal pressures⁷ taken every 5 minutes for half an hour and finally every minute for 3-4 minutes, under conditions of complete quiet, were never as low as those recorded during sleep with the automatic blood-pressure recorder—indeed they were often close to the highest pressures recorded with the apparatus. Casual pressure readings did not differ appreciably from these basal readings, though, as might be expected, a greater range of variation of casual readings was found. In the practical management of hypertension, therefore, provided due regard is paid to factors likely to affect the pressure—such as the doctor-patient relationship, the time of day, the position of the patient, and other environmental circumstances—then the casual reading remains the most practical and useful method of recording the blood-pressure.

"Journal of Medical Genetics"

Medical students were being taught to take a family history with care long before genetics became a science, and the obvious resemblances between blood relatives have excited a variety of emotions throughout the ages. Though pride and rejoicing are perhaps most often on the record, accusations of bastardy in high places have been known to make swords rattle and committee meetings break up in disorder. Recently new techniques for the microscopical examination of chromosomes, the biochemical differentiation of the body's constituents, and the statistical analysis of measurable characteristics have enormously enlarged the scope of genetics. To a much greater extent than formerly it is now possible to predict the likelihood of a person's falling victim to some disease or of what course his disease will take. All this means more papers for publication, and consequently last year the decision was made to publish another specialist journal in association with the *British Medical Journal*, making the fifteenth of this kind. A team of distinguished medical men with special interest in genetics have consented to serve on the editorial committee, while the editor is Professor Arnold Sorsby, research professor in ophthalmology at the Royal College of Surgeons. The first number of the *Journal of Medical Genetics* now appears dated September 1964.¹

An editorial points out that the new journal "is the first to be exclusively medical and to be broadly based." The editors hope it will attract contributions not only from hospitals and research units but from general practitioners also, and that the latter will be stimulated "to explore the immense wealth of genetic material that comes their way." Thus the journal will doubtless serve to focus genetic study on to the problems of human disease. And the particularly strong traditions of scientific genetics in Great Britain, originating in the nineteenth century, should find much support for their continuance in its publication.

¹ Richardson, D. W., Honour, A. J., Fenton, G. W., Stott, F. H., and Pickering, G. W., *Clin. Sci.*, 1964, 26, 445.

² Follett, D. H., Freundlich, H. F., Shaw, D. B., and Davies, D. H., *Lancet*, 1963, 1, 808.

³ Ball, G. R., Pallett, J., and Shillingford, J. P., *ibid.*, 1961, 2, 1178.

⁴ Brush, C. E., and Fayerweather, R., *Amer. J. Physiol.*, 1901, 5, 199.

⁵ Brooks, H., and Carroll, J. H., *Arch. intern. Med.*, 1912, 10, 97.

⁶ Mueller, S. C., and Brown, G. E., *Ann. intern. Med.*, 1930, 3, 1190.

⁷ Alam, G. M., and Smirk, F. H., *Brit. Heart J.*, 1943, 5, 152.

¹ British Medical Association, Tavistock Square, London W.C.1. £3 3s. per annum (abroad £3 10s.), 4 numbers; single numbers 18s. 6d.