used. The recent modification of this method by obtaining a single blood sample three to five hours after injection (Mr. M. Fisher and Dr. N. Veall, 7 June, p. 542) simplifies the technique further. We would like to comment on the clinical value of this modification, using data from approximately 300 patients in which the G.F.R. was measured for different component analysis of the 51Cr-EDTA clearance curve, using seven blood samples taken within five hours of injection.

We have found a similar trend to that obtained by Mr. Fisher and Dr. Veall when two, three, four, and five hour five samples were used, confirming the value of the method when the G.F.R. is normal or moderately reduced (30 ml/min). There is reduction in accuracy when the G.F.R. falls below this level, but a further blood sample taken after another two or three hours enables the single-slope method of analysis to be used, with considerable improvement in accuracy.

The optimum timing of a single blood sample for greatest accuracy appears to depend on the level of the G.F.R., with a two- or three-hour sample appropriate for estimation of high values and a four- or five-hour sample for low values. The suggestion that correction for body surface area may improve accuracy is not born out by our data, and body weight correction is also of little value, implying that individual differences in 51Cr-EDTA distribution are not significantly influenced by these parameters.

The simplicity of a single blood sample outweighs the modest improvement in accuracy obtained with multiple samples and we welcome this modification. For serial follow-up of individual renal problems reproducibility is more important than absolute accuracy, and we find that the single-sample technique proves adequate for this purpose. —We are, etc.,

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Adjustment to Low-dose Heparin to Prevent Thrombosis

Sir,—Your leading article on “Low-dose Heparin and the Prevention of Venous Thromboembolic Disease” (23 August, p. 47) may answer some of our queries, but it is not possible to accept the apparent increase in NAG excretion results from a reduced creatinine output in the urine, which may be present in renal disease with elevated serum creatinine, and not from a true increase in NAG excretion rate? Unfortunately, data of the urinary creatinine output are not given in the paper. The NAG values given in the paper can be accepted as being due to a true increase in NAG excretion rate only if it has been shown that there is a normal significant direct correlation between NAG excretion rate and urinary creatinine output, so that a fall in urinary creatinine is associated with a fall in NAG excretion. Then in renal disease an increase in NAG expressed per mg creatinine will truly be due to an increased excretion rate of the enzyme.

The problem of timed collections has been overcome for urinary γ-glutamyl transference by using a random sample where the time interval from the previous voiding is known. An excretion rate can thus be calculated and this has produced no problems due to excessive changes in urine volume or to variation in excretion rate throughout the day.—I am, etc.,

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Myocardial Scanning

Sir,—We were interested in the paper by Dr. J. T. Innes and others (30 August, p. 517) on myocardial scanning using 99mTc-stannous pyrophosphate, having ourselves used a similar technique in 52 patients with suspected myocardial infarction, using a single-gamma camera rather than a gamma camera was used, thus making it within the resources of most district general hospitals. This was mounted on a simple mobile frame so that scanning could be performed at the bedside with minimal disturbance to the patient. A dose of 8 mCi of the isotope was found sufficient.

Positive scans were found from 17 hours to 18 days after the onset of symptoms. We found the anterior scan to be the most useful view, an abnormal result being indicated by asymmetry about the sternum. When infarction was “definite” from the story, electrocardiogram, and enzyme changes the scan was positive in all of 15 patients, when “likely” in 12 of 16, and when “doubtful” in nine of 21.

Heart scanning using 99mTc-stannous pyrophosphate seems useful in the assessment of suspected myocardial infarctions. These preliminary studies suggest that it is reliable, safe, sensitive, and of particular value when previous diagnosis makes electrocardiographic interpretation difficult and when raised enzyme levels cannot be attributed with confidence to the heart.—We are, etc.,

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Malaria in Scotland

Sir,—During 1970-4 104 cases of malaria were reported from laboratories in Scotland. Twenty-six of these admitted to this department fell into three categories.

All 13 Asians had been visiting Asia after living in the United Kingdom for several years. None had taken malaria prophylaxis, though before starting their trip most had acquired smallpox inoculation, which could have provided an opportunity for advising on antimalarials.

The two West Africans in the series had both discontinued long-term pyrimethamine prophylaxis, leaving Africa subsequently developed falciparum infection. With increasing use of