Pfleiderer, Otto, and Hardegg (1959) reported a difference between plasma and serum potassium in seven normal men. They found that the serum potassium exceeded the plasma potassium by between 0·57 and 0·87 mEq. per litre. Further experiments on serum and plasma in this laboratory have confirmed a difference between plasma and serum potassium, but have failed to establish any significant difference between plasma and serum sodium.

I should like to express my thanks to Dr. T. P. Whitehead and Dr. W. Westwood for their advice and help.

REFERENCES

Hartmann, R. C., Auditore, J. V., and Jackson, D. P. (1958). *J. clin. Invest.*, **37**, 699.
Pfleiderer, T., Otto, P., and Hardegg, W. (1959). *Klin. Wschr.*, **37**, 39.
Snodgrass, P. J., Fuwa, K., and Hviid, K. (1962). *J. Lab. clin. Med.*, **60**, 983.
Wills, M. R., and Fraser, I. D. (1964). *J. clin. Path.*, **17**, 649.

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for, particularly in an attempt to define the mechanism of increased renal clearance of uric acid which occurs in normal pregnancy.

REFERENCES

Buchanan, M. J., Isdale, I. C., and Rose, B. S. (1965). *Ann. rheum. Dis.*, **24**, 285.

Greenhut, I. J., Silver, R. A., and Campbell, J. A. (1953). *Radiology*, **60**, 257.

Hytten, F. E., and Paintin, D. B. (1963). *J. Obstet. Gynaec. Brit. Cwlth*, **70**, 402.

Lee, F. I., and Loeffler, F. E. (1962). *Ibid.*, **69**, 299.

Steenstrup, O. R. (1963). *Urinsyrestudier pa normale gravide*. Universitetsforlaget, Aarhus.

Werngold, A. B. (1960). *Obstet. and Gynec.*, **16**, 309.

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case of sodium, chloride, and urea to have errors exceeding these criteria. Zwart Voorspuij and van der Slik (1964) have suggested a ratio of physiological to analytical standard deviation of at least 3–5 to 1. With their technique for sodium analysis to achieve a ratio of 5 to 1 would have required taking the mean of seven analyses on each sample. In most cases figures for precision in clinical chemistry do not represent ideals, but merely what has been at present achieved.

Taking sodium as an example, the 95% confidence limits for a result of 140 mEq./l. are 137-143 mEq./l. When this range is compared with some of the quoted normal values for sodium, *e.g.*, those of Massachusetts General Hospital, 136-145 mEq./l. (Zervas, Holmes, Rieder, King, Beck, and Goultan, 1963), England, 133-146 mEq./l. (Varley, 1962) and 136-149 mEq./l. (Wootton, 1964), and New Zealand, 135-147 mEq./l. (Allen, 1964) it becomes clear that greater analytical precision must be achieved if further information is to be obtained from routine analyses. The same comment applies to the other constituents mentioned in this paper with the exception of potassium.

REFERENCES

Allan, R. D. (1965). *N.Z. med. J.*, **64**, 330.
Hendry, P. I. A. (1963). College of Pathologists of Australia. Report No. 22.
Hughes, H. K., *et al.* (1952). *Analyt. Chem.*, **24**, 1349.
Marsh, W. H., Fingerhut, B., and Miller, H. (1965). *Clin. Chem.*, **11**, 624.
Moroney, M. J. (1962). *Facts from Figures*, p. 155. Penguin Books, London.
Thiers, R. E., and Oglesby, K. M. (1964). *Clin. Chem.*, **10**, 246.
Tonks, D. B. (1963). *Ibid.*, **9**, 217.
Varley, H. (1962). *Practical Clinical Biochemistry*, 3rd ed., p. 418. Heinemann, London.
Weller, C., Linder, M., Macaulay, A., Ferrari, A., and Kessler, G. (1960). *Ann. N.Y. Acad. Sci.*, **87**, 658.
Wootton, I. D. P. (1956). *Clin. Chem.*, **2**, 296.
—— (1964). *Micro-analysis in Medical Biochemistry*, 4th ed, p. 3. Churchill, London.
——, and King, E. J. (1953). *Lancet*, **1**, 470.
Zervas, M., Holmes, O., Rieder, S. V., King, M. A., Beck, W. S., and Goulian, M. (1963). *New Engl. J. Med.*, **268**, 1462.
Zwart Voorspuij, A. J., and van der Slik, W. (1964). *Clin. chim. Acta*, **9**, 99.

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