

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.

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The July 1966 Issue

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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.

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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.

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