

# Urea and electrolyte profile in steady state sickle cell disease: observations in patients with sickle cell disease in The Netherlands.

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## Abstract:

During a study of clinical and laboratory features in 83 patients with sickle cell disease in the Netherlands, serum creatinine, sodium, potassium, uric acid and osmolality were determined and reported for 65: 39 with homozygous sickle cell (SS) disease, 5 with beta degrees thalassaemia (S beta degrees thal), with sickle cell beta + thalassaemia (S beta degrees + thal) and 17 with sickle cell haemoglobin C (SC) disease. Data on history of hyposthenuria was unreliable. Haematuria was reported in 6 (7%) of the 83 patients. Four of the six patients with a history of haematuria, two of whom had elevated creatinine levels, had SS disease. Lower mean levels of serum sodium and higher levels of serum potassium were observed in SS's than in the other genotypes ( $p$  less than 0.001). Hyperkalaemia of greater than 5 mmol/l was seen in 50% of SS disease cases and in 33% of paediatric SC disease cases. Some high potassium levels must be ascribed to in vitro haemolysis. The rate of hyperuricaemia ranged from 24% to 40% among the various genotypes. Clinical gout was not observed.