

# Clinical pharmacokinetics of furosemide in children with nephrotic syndrome

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The pharmacokinetic disposition of furosemide has been investigated in seven children with nephrotic syndrome and in eight control children. Furosemide in plasma was analyzed by spectrofluorometry. After a single intravenous dose of furosemide (1 mg/kg body wt.) the nephrotic children showed lower initial plasma concentrations because of the larger volume of distribution. The mean half-life of furosemide in nephrotic children ( $38.5 \pm 7.8$  min) was significantly longer than in the control group ( $28.0 \pm 7.7$  min). The two groups did not differ in the body clearance of total furosemide. The average serum clearance was  $4.95 \pm 1.7$  ml/min/kg body wt. in the control group and  $5.10 \pm 1.4$  ml/min/kg body wt. in the nephrotic children. There was a significant reduction in urine sodium and distribution volume, whereas potassium excretion remained unchanged.