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A warning for the treatment of hyperkalaemia with salbutamol

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Sir: With interest we read the article by Kemper et al. [3] on the treatment of acute hyperkalaemia in childhood by short-term intravenous infusion of salbutamol. Intravenous [3, 4, 5] or endotracheal [1, 4, 6] administration of salbutamol for the treatment of hyperkalaemia has been reported earlier and is increasingly used in practice.

Kemper et al. [3] measured serum potassium concentrations at 30, 60, 90 and 120 min after the intravenous administration of salbutamol and indeed observed a significant and prolonged decrease.

We would like to draw attention to a recent paper [2] reporting the results of administration of salbutamol in the baboon. It appears that a short-lived increase in serum potassium concentrations of about 0.5 mmol/l is observed, before a prolonged decrease occurs, demonstrating an early rise in serum potassium, shortly after the administration of salbutamol. This hyperkalaemic phase occurred in all six animals investigated and was associated with left ventricular conduction defects in three of them. Since in the human studies serum potassium was measured 10 min after the administration of salbutamol at the earliest, it is not known whether an initial hyperkalaemic phase also occurs in man.

At high serum potassium concentrations, usually the case when salbutamol treatment is considered, an eventual increase could trigger serious cardiac dysrhythmias, such as ventricular fibrillation. We feel that treatment with salbutamol should not be advocated until additional information about the early response of serum potassium concentrations in the human is obtained. Since being aware of the studies in the baboon, we use only insulin and glucose for treating hyperkalaemia.

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Hepatitis B and C infection in children with Down syndrome

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Abbreviations *HBV* hepatitis B virus · *HCV* hepatitis C virus · *HBsAg* hepatitis B surface antigen

Sir: Down syndrome persons have an higher incidence of hepatitis B virus (HBV) chronic carriage [4]. Vaccination against HBV in these patients has proven effective both in adults and children. In the latter age group, however, data are still scanty [6]. In