

A Simple and Rational Twice Daily Insulin Regime

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Summary

A new insulin regime is described, in which the primary aim is to attain normal basal plasma glucose concentrations by means of a constant insulin delivery rate from the long-acting *Ultratard* insulin. Additional twice daily Actrapid insulin is given to cover meals, and we have investigated this regime in 29 insulin dependent diabetics, with control assessed by admission for 24 hour profiles. Patients with low insulin requirements only need a basal insulin supplement with Ultratard insulin. With increasing insulin requirements the dose of short-acting insulin increases more than the basal insulin supplement. Thus fixed combinations of short- and long-acting insulins cannot produce good control in all patients. Twenty-one patients were deemed 'well controlled' in that they had no symptomatic hypoglycaemia, an overnight plasma glucose concentration of <5.5 mmol/l and a mean late post-prandial glucose concentration of <6.5 mmol/l. Their average 'mean excess glycaemic exposure' (mean incremental plasma glucose above 5 mmol/l) was 0.7 mmol/l (normal range 0–0.5 mmol/l), which is considerably less than that found in many maturity-onset diabetics. The distinction between basal and meal insulin requirements simplifies rules of insulin therapy.