

Human ultralente insulin.

Holman,RR; Steemson,J; Darling,P; Reeves,WG; Turner,RC

Br Med J (Clin-Res-Ed). 1984 Mar 3; 288(6418): 665-8.

The greater solubility of human insulin and its possible faster action have led to doubts about whether a sufficiently long acting formulation could be produced to provide a basal supply for diabetics. In a double blind crossover study in 18 diabetics human ultralente insulin was as effective as beef ultralente insulin in controlling basal plasma glucose concentrations (median 5.7 mmol/l (103 mg/100 ml) with human and 6.3 mmol/l (114 mg/100 ml) with beef ultralente insulin respectively). There was no significant difference between human and bovine insulin in the rise in plasma glucose concentration from 0400 to 0700 after an injection the previous morning and no difference between patients receiving an adequate or insufficient dose of human ultralente insulin. Bovine insulin antibody binding was reduced with human insulin (p less than 0.002), which suggests that human insulin is less antigenic than beef insulin. Once daily human ultralente insulin provides a suitable formulation for the basal insulin requirement of diabetics.