Prevention of deterioration of renal and sensory-nerve function by more intensive management of insulin-dependent diabetic patients. A two-year randomised prospective study.

Holman,RR; Dornan,TL; Mayon White,V; HowardWilliams,J; Orde Peckar,C; Jenkins,L; Steemson,J; Rolfe,R; Smith,B; Barbour,D; McPherson,K; Poon,P; Rizza,C; Mann,JI; Knight,AH; Bron,AJ; Turner,RC

Lancet. 1983 Jan 29; 1(8318): 204-8.

74 insulin-dependent diabetic patients with background retinopathy were randomised to continue with usual diabetic care (group U) or to a more intensive programme (group A) using ultralente insulin as basal cover and soluble insulin at mealtimes. Group A attended the clinic more frequently, received closer dietary supervision, and were taught home blood glucose monitoring. Group A had a significantly lower mean glycosylated haemoglobin level during the study, although the mean level also fell in group U towards the end of year 2. Renal and sensory-nerve function were significantly better preserved in group A than in group U. Significant improvements were also seen in low-density-lipoprotein-cholesterol and whole-blood low-shear viscosity. The rate of progression of retinopathy was similar in both groups. It appears that a modest improvement in diabetic control, obtainable in most clinics, has been associated with a reduction in the progression of diabetic tissue damage.