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### Improved Treatment Satisfaction and Quality of Life with Insulin Glargine + Lispro compared with NPH Insulin + Regular Human Insulin in Patients with Type 1 Diabetes

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Diabetes has a significant negative impact on the quality of life (QoL) of patients. This was a multicenter, open-label, randomized crossover clinical trial comparing insulin glargine (LANTUS<sup>®</sup>) + insulin lispro (Humalog<sup>®</sup>), with NPH insulin + regular human insulin, in patients with type 1 diabetes. Objectives were to compare once-daily insulin glargine + lispro (glargine + lispro) with once- or twice-daily NPH+regular insulin (NPH+regular) in terms of treatment satisfaction (using the Diabetes Treatment Satisfaction Questionnaire [DTSQ], 6 items of which provide a Treatment Satisfaction score, ranging from 0 [very dissatisfied] to 36 [very satisfied]) and measures of present QoL and perceived impact of diabetes on QoL (average weighted impact [AWI] scores) from the Audit of Diabetes Dependent QoL. Lispro or regular insulin was given before meals. Patients (n=48; 62.5% female; mean age 42±11.4 years) were randomized to receive either Treatment Sequence A (glargine + lispro [treatment period 1] followed by NPH + regular [treatment period 2]; n=22) or Treatment Sequence B (NPH + regular [treatment period 1] followed by glargine + lispro [treatment period 2]; n=26) for a total of 32 wks (16 wks per treatment period). Patient-reported outcomes were assessed initially and after each treatment period. Statistical tests used were analysis of variance, with a model including terms for treatment, period, sequence and subjects within sequence. Treatment satisfaction increased during treatment with glargine + lispro, regardless of which period it was administered in (Graph). For the total treatment period, Treatment Satisfaction scores were significantly higher with glargine + lispro compared with NPH + regular (mean: 32.2±3.4 vs 23.9±7.2; p<0.0001). Present QoL was also significantly better with glargine + lispro compared with NPH + regular (mean:1.6 vs 1.3; p=0.014), and patients reported significantly less negative impact of diabetes on QoL following glargine + lispro compared with NPH + regular treatment (mean AWI: -1.34 vs -1.64; p=0.033). In conclusion, this study shows that insulin glargine + lispro improves QoL and treatment satisfaction.

