The Dose Adjustment For Normal Eating (DAFNE) Trial: improvements in HbA1c still apparent and quality of life benefits well maintained at 4-year follow-up

Speight J1, Amiel S2, Bradley C3, Heller S4, James P5, Oliver L5, Roberts S5, Rogers H2, Taylor C4, Thompson G5
1 AHP Research, Brunel Science Park, Uxbridge, UK
2 Diabetes Research Group, King’s College London School of Medicine, London, UK
3 Department of Psychology, Royal Holloway University of London, Egham, UK
4 Division of Clinical Sciences, Northern General Hospital, Sheffield, UK
5 Northumbria Diabetes Service, Northumbria Healthcare NHS Trust, North Shields, UK

Background: The Dose Adjustment For Normal Eating (DAFNE) trial was a waiting-list-controlled study of 5 days’ training in flexible, intensive insulin therapy in a group of 135 adults with Type 1 diabetes in the UK. At 6 months (m), DAFNE improved glycaemic control without increasing severe hypoglycaemia, while significantly reducing the negative impact of diabetes on quality of life (QoL) and improving other patient reported outcomes (PROs).

Aim: To evaluate long-term efficacy of DAFNE training. Methods: At 44m follow-up (range: 37-51m), 108 (80%) trial participants provided biomedical data and 88 (65%) completed questionnaires, including ADDQoL (measuring impact of diabetes on QoL). Results: At 44m, HbA1c (8.96±1.2%) had deteriorated from 12m (8.75±1.2%, p<0.05) but remained improved from baseline (9.32±1.1%, p<0.01). All QoL outcomes remained significantly improved from baseline with no difference between 12m and 44m (e.g. impact of diabetes on dietary freedom: -1.78±2.33 at 44m vs -4.27±2.94 at baseline, p<0.0001; vs 1.80±2.32 at 12m, ns). Conclusions: The impact of a single DAFNE course on glycaemic control is reduced but still apparent in the long term. Additional input may be needed to maintain the initial response. In contrast, improvements in QoL and other PROs were well maintained over approximately 4 years.