FACT SHEET TWO

The Evidence Base for DAFNE

DAFNE has a solid evidence base. The programme has been developed over more than 25 years of rigorous research. [1, 2, 3, 4] This includes a randomised control trial in Northern Europe and a feasibility trial and economic analysis here in the UK.

The results of the DAFNE study were published in the BMJ [5] in 2002, and showed clinically and statistically significant improvement in:

✔ Glycaemic control, without increased severe hypoglycaemia.
✔ Quality of life.
✔ Treatment satisfaction.

Only 4 of the 141 participants in the feasibility study did not derive some benefit from DAFNE.

An economic evaluation of DAFNE by the York Health Economics Consortium showed that reduced complication rate expected of the observed improved diabetic control means DAFNE pays for itself within 5 years [6].

The following is a list of relevant references:


Patients from 2 centres in Vienna and Dusseldorf were observed for 22 months following 5-day structured in-patient teaching in intensive insulin therapy. There was a reduction in HbA1c of around 1.5% and reductions in episodes of severe hypoglycaemia, emergency admissions to hospital and sick days off work.


Similar results were obtained in a RCT in Bucharest. The control group followed a similar knowledge based in-patient group programme, but was taught conventional insulin therapy.


Adapted for out patient use in Austria there was a reduction of HbA1c of 1.2% subsequently up to 6 years.
• Bott S, Bott U, Berger M, Muhlhauser

Intensified insulin therapy and the risk of severe hypoglycaemia. Diabetologia 1997; 40: 926-32

636 patients were studied in detail 1, 2, 3 and 6 years after attending a single course. The benefits on glycaemia were sustained for 3 years and partially for 6 and the effects on hypoglycaemia sustained throughout.

• DAFNE Study Group. Training in flexible, intensive insulin management to enable dietary freedom in people with type 1 diabetes: dose adjustment for normal eating (DAFNE) randomised controlled trial. BMJ: 2002; 325:746

Presents the results of the UK DAFNE feasibility study. The results reveal that the approach pioneered in Germany can be successfully transferred to a UK healthcare setting and can improve glycaemic control. This approach also leads to significant improvements in treatment satisfaction, psychological well being and quality of life measures.


DAFNE and the economic evaluation were considered by NICE as part of the initial consultation for NICE Technical Appraisal 60, in which DAFNE is the only programme named as an example of high quality structured education

• Shearer A, Bagust A, Sanderson D, Heller S, Roberts S. Cost-effectiveness of flexible intensive insulin management to enable dietary freedom in people with Type 1 diabetes in the UK. Diabetic Medicine 2004; 21 (5): 460-67

An economic evaluation of DAFNE by the York Health Economics Consortium showed that reduced complication rate expected of the observed improved diabetic control means DAFNE pays for itself within 5 years.


The study revealed reductions in HbA1c and severe hypoglycaemia along with improved quality of life, demonstrating that the hub and spoke method of delivery of DAFNE is a feasible and effective model of structured education service provision in units unable to develop a full DAFNE service due to resource issues.


Follow-up of 104 of the 140 original DAFNE feasibility study cohort at 44 months post course show mean improvement in HbA1c from baseline was 0.36%. Quality of Life outcomes remained improved from baseline, with no difference between 12 and 44-month; revealing that the impact of a single DAFNE course on glycaemic control is still apparent in the long term. Improvements in QoL and other patient reported outcomes are well maintained over approximately 4 years.
DAFNE Audit findings


Retrospective analysis of insulin dose changes associated with DAFNE training at one DAFNE service show significant reduction in total, quick acting and basal insulin doses post DAFNE, which would produce a cost saving of £60-£70 per annum/70kg subject.

- Gunn D and Mansell P. Glycaemic control and weight 7 years after Dose Adjustment for Normal Eating (DAFNE) structured education in Type 1 diabetes. Diabetic Medicine 2012; 29: 807-812

HbA1c and weight data for 111 patients, who attended a DAFNE course at one DAFNE service between June 2002 to the end of 2003 were compared to a matched comparator group who had not undergone DAFNE training. Data revealed that uniquely DAFNE is associated with improved glycaemic control at 1 year post course which is persistent and clinically relevant 7 years post course.


A range of biomedical and psychological data collected pre and 1 year post DAFNE training for participants completing DAFNE training across the UK during 2005, revealed that DAFNE delivered in routine clinical practice improved HbA1c while reducing severe hypoglycaemic rate and restore hypo awareness, reduce psychological distress and improve perceived well being.

For the latest information about DAFNE please check the website or email: dafne@nhct.nhs.uk

www.DAFNE.uk.com

Twitter: twitter.com/#!/DAFNEUK

Facebook: www.facebook.com/UKDAFNE

www.DAFNEonline.co.uk

DAFNE Online is an independent community of DAFNE Graduates, Healthcare professionals, Management and friends and family of those with Type 1 diabetes. Please visit the website to find out more.