## Self-management of Type 1 Diabetes
### DAFNE (Dose Adjustment For Normal Eating)

<table>
<thead>
<tr>
<th>Aim(s) and objective(s)</th>
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<td>People with Type 1 Diabetes should have access to effective patient education to enable them to manage their diabetes on a day-to-day basis.</td>
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<th>Author(s)</th>
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<td>Patricia Sullivan, Diabetes Specialist Nurse.</td>
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<th>User group</th>
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<td>All staff involved in the care and education of people over the age of 17 who have been diagnosed with Type 1 Diabetes.</td>
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<tr>
<td>This guideline is not intended for persons who have been diagnosed with Type 2 Diabetes</td>
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### Guideline

Structured patient education means there is a planned course that:
- Covers all aspects of diabetes
- Is flexible in content
- Is relevant to a person's clinical and psychological needs
- Is adaptable to a person's educational and cultural background

DAFNE (Dose Adjustment For Normal Eating) is a skills-based structured education programme in intensive insulin therapy and self-management where people with diabetes are taught to match their insulin dose to food intake on a meal by meal basis. DAFNE is endorsed in the NICE guidance as an example of high-quality structured education for people with Type 1 Diabetes. It is available to suitable patients with Type 1 Diabetes in NHS Lanarkshire.

In order for a diabetes centre to become a DAFNE centre they must be able to:
- Identify at least 2 individuals (1 Diabetes Specialist Nurse and 1 Diabetes Dietitian) to complete the DAFNE educator programme (DEP)
- Identify 1 physician to attend the DAFNE Doctor programme (DDP)
- Make the identified educators and doctors available for training
- Take part in the QA programme and Regional and National meetings
- Identify a lead individual as a point of contact with central DAFNE Administration
- Identify space to run courses
- Take part in the training of other diabetes units once experienced
- Ensure that post course patients have access to structured follow-up and appropriate clinics
- Undergo supported peer review and subsequent internal quality assessment

### Training the educators

Diabetes specialist nurses and dietitians wishing to deliver DAFNE courses must first agree a learning contract and successfully complete the DAFNE Educator Programme (DEP), a six part course. Likewise all doctors involved in DAFNE are required to complete the short DAFNE Doctor Programme (DDP)

All six parts of the DEP must be successfully completed in sequence, in order for DAFNE educator registration to be obtained. To maintain educator status, each educator should deliver at least one DAFNE course every 6 months.
Each educator is subject to ongoing external and internal peer review. Educators must adhere to the structured written curriculum which is a comprehensive document underpinned by the DAFNE philosophy. It is evidence based, with an on-going cycle of revision and audit to ensure reliability, relevance and validity.

The DAFNE Approach – Main principles of the course:

- Skills based training to teach flexible insulin adjustment to match carbohydrate in a free diet on a meal-by-meal basis
- Emphasis on self-management and independence from the diabetes care team
- The use of adult education principles to facilitate new learning in the group setting

Participants will attend the course for 5 full consecutive days and the 3 main areas covered include:

- Nutrition topics – mainly carbohydrate counting
- Insulin dose adjustment at mealtimes and special circumstances (exercise, illness)
- Other topics such as hypoglycaemia, complications, sick-day rules and pregnancy

DAFNE Structured Education Courses for people with Type 1 Diabetes are now available at Monklands District General Hospital, Wishaw General Hospital and Hairmyres Hospital.

Who could benefit? Some things to consider...

- Adults (>17 yrs) with Type 1 diabetes for at least 6 months or post-honeymoon
- HbA1c >110mmol/mol - may indicate a patient who is omitting insulin. Discuss how committed they are to a MDI regimen; how motivated are they to improve their glycaemic control
- Retinopathy - how well can they independently manage essential skills such as CP estimation, BG monitoring, injections, etc.
- Nephropathy - whilst insulin action may be affected in end stage renal failure, motivated patients should not be excluded. Those on haemodialysis should try to arrange evening/weekend sessions during the DAFNE week. Educators may prefer to have support of diabetes/renal medical colleagues before taking on these participants
- Gastroparesis - participants unable to eat normally due to nausea and vomiting or requiring artificial nutrition for severe gastroparesis may not benefit from DAFNE course
- Pregnancy - pregnant Type 1 ladies can attend a course but will need adapted advice re frequency of monitoring and BG targets. Educators may prefer to have experience of delivering DAFNE and the support of diabetes/obstetric medical colleagues before taking on these participants
- Eating Disorders - patients may be unwilling to discuss dietary / CP intake with Educators or within the group, making dose adjustments challenging. Educators may prefer to have experience of delivering DAFNE and the support of eating disorder / mental health colleagues before taking on these participants
- Communication - must be able to hear/speak/understand English) - use of translators / signers may result in incorrect information being relayed and increase in the time required to deliver sessions
- CSII pumps - it is recommended that those on pump therapy receive the specific DAFNE CSII curriculum (additional Educator training and resources will be required)

People who are unable or unwilling to attend a DAFNE course will be offered diabetes education on a one-to-one basis. This does not include DAFNE specific topics. They will be seen as often as necessary until they have an understanding of Type 1 diabetes and its day-to-day management.
Referral
The opportunity to participate in structured education should be discussed as part of the diabetes outpatient clinic visit for all those with Type 1 Diabetes as mentioned above. The outcome of this discussion should be recorded in the patient’s record and communicated with their GP. Patients who wish to attend a DAFNE course should be referred to the DAFNE educators based at their own local hospital via the specialist diabetes team.

What happens next?
There are a maximum number of eight patients assigned to each DAFNE course. The number of courses run by each hospital will depend on the availability of DAFNE educators. Uptake for course places on recruitment evenings is excellent and courses are often booked up to 1 year in advance. If there are course places available patients may be allocated a date directly. If all courses are fully allocated, names will be placed on a recruitment list/database and they will be invited to attend for a short presentation on the principles/content of the DAFNE approach. If patients opt in they will be allocated the first course dates available and informed by letter. If patients opts out this is documented on the data base and the person's diabetes specialist team and GP is informed.

The patient is called for a pre DAFNE screening visit a few weeks prior to course date for baseline assessment and pre course insulin adjustment.

The patient then attends a 5 day outpatient training course (Monday to Friday) 9 am - 4.30 pm. Family members or carers are invited to attend for part of the curriculum. There is a follow up meeting 6 to 8 weeks later followed by annual updates.

Diabetes MCN endorsement
May 2014

Review Date
May 2017