Diabetes information in symbols

Dr Hilary Hearnshaw
Director of Research, Warwick Diabetes Care, Centre for Primary Health Care Studies,
Warwick Medical School, University of Warwick, Coventry CV4 7AL
Tel 024 7657 2906, Fax 024 7652 8375, Email Hilary.Hearnshaw@Warwick.ac.uk

Dr John Morrissey, Lead Clinician for Diabetes, George Eliot Hospital NHS Trust, Nuneaton,
Warwickshire CV10 7DJ

Cate Detheridge, Widgit Software Ltd, 26 Queen Street, Leamington Spa, Warwickshire
CV32 7NA.

Background

NICE recommend structured education for people living with diabetes (1). Much education
involves the use of documents, which require literacy by the person with diabetes, in order
for the education to be effective (2). However, the use of symbol based documents for
education has been shown to be effective, particularly for those with learning difficulties or
literacy or language difficulties (3). The population of people who live with diabetes includes
all these groups.

There are already many symbol languages and systems (3, 4) which use different
approaches to the creation and development of symbols. We developed symbols for
concepts and words related to diabetes, in order that diabetes related literature might be
translated into symbols and used for the benefit of people who live with diabetes but have
difficulties in reading English.

It is anticipated that symbol-based versions of materials used in diabetes care and diabetes
education will be of value to some people who live with diabetes, especially those who have
difficulties in reading or learning. Such materials would enhance the ability of people to live
with diabetes and self-manage their condition. At present there is very little such material
available.

We anticipate that the symbols developed for these documents can also be successfully
used in producing symbol-based versions of other documents relevant to diabetes, for
example research questionnaire measures, signage, patient information leaflets or
educational material used during consultations.

The processes used in identifying, developing, testing and refining the symbols used are
reported here.

Method

Members of The Warwick Diabetes Care Research User Group (5) worked with the
professional symbol designer, Cate Detheridge of Widgit Software Ltd (6), to develop an
initial set of candidate symbols for diabetes-related words and phrases. These were tested
for guessability (can a person guess the meaning of a symbol alone) and learnability (can a
person remember the correct answers in the guessability test) (eg 7). The tests were done at
a meeting of the Coventry Diabetes UK Voluntary group and in the waiting room at a
diabetes clinic. Over 50 people who live with diabetes were involved in the tests. The results
from these tests were used to select symbols which were easily recognisable and easy to
remember. The final versions of the symbols were shown again to the Warwick Diabetes
Care Research User Group (by email) for their approval.
Discussion
Having developed and tested the symbols, we used them to make symbol-based versions of well-established documents used in structured education in diabetes (8). The materials comprise laminated A4 sheets each covering specific diabetes issues related to the letters of the alphabet A to F. For example, for A the issue is advice, for B it is blood pressure, for F it is feet.

The symbols and the alphabet strategy education cards are available free of charge on the website of widgit.com.

References
5. Warwick Diabetes Care User Group, http://www2.warwick.ac.uk/fac/med/healthcom/diabetes/usergroup/
Sample symbols

- blood sugar
- diabetes
- diabetes
- healthy eating
- insulin
- blood sugar