

IDF guidance needs to be digested



Debbie Hicks

Poorly controlled diabetes is associated with the development of various micro- and macrovascular complications – which are the major cause of death in people with diabetes (DCCT Research Group, 1993; UKPDS, 1998). Lustman et al (2005) reported a strong link between depression and poorly controlled diabetes. This may create obstacles to the effective management of diabetes.

It has been shown in several large clinical trials that a significant decrease in the progression or development of microvascular complications can be achieved with intensive treatment of the condition (DCCT Research Group, 1993; Ohkubo et al, 1995; UKPDS, 1998). A lowered risk of CVD has been shown in people with type 1 diabetes or impaired glucose tolerance when glycaemic control is intensive (Nathan et al, 2005). It has also been shown in a meta-analysis by Stettler et al (2005) that improved glycaemic control in people with either type 1 or type 2 diabetes yielded significant reductions in the incidence of macrovascular events.

Until now, the main emphasis of blood glucose management has been on lowering HbA_{1c} by targeting fasting plasma glucose levels. However, optimal glycaemic control is unlikely to be reached by predominantly focusing on fasting hyperglycaemia. Much evidence is now available suggesting that a reduction in postprandial glucose levels may be more beneficial in reducing HbA_{1c} and achieving agreed targets than fasting plasma glucose levels (Sorkin et al, 2006; Monnier et al, 2007).

The IDF produced the *Guideline for Management of Postmeal Glucose* in late 2007 in an attempt to address the lack of emphasis placed on monitoring postprandial blood glucose excursions. Their full recommendations are documented within the guideline (see *Box 1* for a brief overview).

Unfortunately, this important document does not yet seem to have been widely seen. I was recently at a meeting discussing the value of blood glucose monitoring, and only a couple of people out of an audience of over thirty DSNs and practice nurses were aware of the

guideline. Please let all your colleagues know about this guideline: it is very easy to access and download at http://www.idf.org/webdata/docs/Guideline_PMG_final.pdf (accessed: 12/05/08). We all need to be mindful that we may be missing valuable information on the effectiveness of diabetes therapy and the damage caused by postprandial hyperglycaemia if we fail to include assessment of postprandial blood glucose results in consultations with people with diabetes. We need to stress the importance of including postprandial, as well as preprandial, blood glucose tests when teaching SMBG so we gain as much information as possible to help people with diabetes improve their glycaemic control and reduce their risk of long-term complications. ■

DCCT Research Group (1993) *New England Journal of Medicine* **329**: 977–86
IDF (2007) *Guideline for Management of Postmeal Glucose*. IDF, Brussels
Lustman PJ, Clouse RE (2005) *Journal of Diabetes Complications* **19**: 113–22
Monnier L, Colette C, Dunseath GJ, Owens DR (2007) *Diabetes Care* **30**: 263–9
Nathan DM, Cleary PA, Backlund JY et al (2005) *New England Journal of Medicine* **252**: 2643–53
Ohkubo Y, Kishikawa H, Araki E et al (1995) *Diabetes Research and Clinical Practice* **28**: 103–17
Sorkin JD, Muller DC, Fleg JL, Andres R (2005) *Diabetes Care* **28**: 2626–32
Stettler C, Allemann S, Juni P et al (2006) *American Heart Journal* **152**: 27–38
UKPDS Group (1998) *Lancet* **352**: 837–53

Box 1. A summary of the main points of the *Guideline for Management of Postmeal Glucose* (IDF, 2007).

- Postprandial hyperglycaemia is harmful and needs to be addressed.
- In people with postprandial hyperglycaemia strategies should be implemented in order to reduce postprandial plasma glucose levels.
- Targetting postprandial plasma glucose levels should be attempted with a variety of pharmacological and non-pharmacological therapies.
- Provided that hypoglycaemia is avoided, 2-h postprandial glucose should not be greater than 7.8mmol/l.
- As SMBG is currently the most practical method for monitoring postprandial glycaemia it should be considered in appropriate people.
- To achieve postprandial plasma glucose targets the efficacy of treatment regimens should be monitored as frequently as needed.

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