

Global Guidelines for Type 2 Diabetes:

Targeting Management, Setting Standards for Diabetes Care

The International Diabetes Federation suggests that these guidelines may help reduce the rate of microvascular complications related to diabetes.

BY LAURA SUAREZ, MANAGING EDITOR

Released in Athens at the European Association for the Study of Diabetes (EASD) meeting, a set of diabetes global guidelines may impact the quality of life of the nearly 194 million people worldwide who have the disease.¹

The International Diabetes Federation (IDF), an umbrella group of 190 organizations from 150 countries, compiled the first-ever global guidelines for the management of type 2 diabetes.² The *Global Guideline for Type 2 Diabetes* is available at www.idf.org. Approximately 20,000 copies were distributed at the EASD meeting and are now available worldwide.

Professor Philip Home, joint chair of the IDF Task Force on Clinical Guidelines, and representatives from countries with varying levels of economic status, developed the guidelines to have a global application depending on the amount of available health care resources in a region. The evidence-based guidelines are a broadly based document, Professor Home said, that is a derivative of larger studies including the DCCT, the UKPDS and also the European, North American and Australian national guidelines.

"Around the world, we have countries that are very poor and countries that are very rich. Indeed within individual countries, we have rich people and, sadly, poor people whose health care resources are more limited," Professor Home said during an interview with *Diabetic Microvascular Complications Today*. "So as well as the country means, in order to meet the needs of people with different levels of health resources, we for the first time are trying to produce a guideline that could be applicable whatever your level of availability of money for health care."

This innovative guideline method employs a level of care approach to health care; one of three standards of care are advised depending on economic status of the region. The goal of the guidelines is to alleviate the diabetes burden worldwide and to restore the quality of life in patients with type 2 diabetes, regardless of economic status.

The three levels of diabetes care are (Table 1):

- Comprehensive care – this is the highest level of care that relies on the ultimate range of health care technologies on the market. Patients should be able to achieve the best possible outcomes with comprehensive care. Although this is the most desirable diabetes care, many countries do not have access to these health care resources. In those instances, the second level of care should be considered;

TABLE 1. LEVELS OF CARE

Standard Care

Evidence-based care. Cost-effective in most nations with a well developed service base and with health care funding systems consuming a significant part of their national wealth.

Minimal Care

Care that seeks to achieve the major objectives of diabetes management, but is provided in health care settings with very limited resources (ie drugs, personnel, technologies and procedures).

Comprehensive Care

Care with some evidence-base that is provided in health care settings with considerable resources.

Source: *Global Guidelines for Type 2 Diabetes*

TABLE 2. SUMMARY OF NECESSARY ASSESSMENTS AT ANNUAL CHECK-UPS

Assessment topic	Guideline section
1. Self-care knowledge and beliefs	Education
2. Lifestyle adaptation and wishes including nutrition, physical activity and smoking	Lifestyle management
3. Psychological status	Psychological care
4. Self-monitoring skills and equipment	Self-monitoring
5. Body weight trends	Lifestyle management
6. Blood glucose control	Glucose control; Clinical monitoring
7. Blood pressure control	Blood pressure control
8. Blood lipid control	Cardiovascular risk protection
9. Cardiovascular risk	Cardiovascular risk protection
10. Erectile dysfunction, neuropathy	Nerve damage
11. Foot condition	Foot care
12. Eyes	Eye screening
13. Kidneys	Kidney damage
14. Pre-pregnancy advice	Pregnancy
15. Medication review	n/a

• Standard care – cost-effective, evidence-based care that is attainable in most countries with a developed health care system and service base;

• Minimal care – although the lowest level of care, it is still reasonable care for health care settings with limited resources. Settings employing minimal care should strive to achieve the greatest part of diabetes management possible.

IDF Task Force representatives were reluctant in creating the lower levels of diabetes care, Professor Home said. However, it is unrealistic to believe that all countries can afford and support standard care. “This completely new level of care approach will hopefully make the guidelines useable in Zimbabwe as well as in New Zealand or in the best private hospitals in the United States,” he said.

Among the most important aspects of the guidelines is a conceptual recommendation – the need for a more active approach in managing type 2 diabetes, Professor Home said. One aspect of this is to choose lowering the target HbA1c to 6.5%, a standard which is not consistent with the American Diabetes Association's target of 7.0%. The IDF, however, argues that lowering the target will further reduce the risk of developing complications. It has been shown that reducing HbA1c by 1.0% may cause a 37% reduction in microvascular complications.³ Practitioners should also set targets for blood pressure, blood glucose and blood lipid levels.

Another highlight is the initiative to reduce the number of

diabetic complications through heightened standards of care. The guidelines endorse an annual check up and review – documented for later use – to deter the development of complications. Table 2 lists the recommended areas for assessment and the section of the guidelines that the recommendation is contained in. Diabetes is a large indicator for blindness, kidney failure and amputation of the lower limbs,⁴ and approximately 85% to 95% of diabetes patients have type 2 diabetes.⁵

“With an international guideline like this, you don't expect it to be implemented directly in the clinic by many people,” Professor Home said. “We expect that the international guidelines will be used to develop local guidelines and local protocols, which are actually the basis of local structures of care.”

Countries including the United States, the United Kingdom, Germany and Australia already have

established national guidelines. With the recent technological advances and discoveries in the field of diabetes research, these and other guidelines have one hope in mind: to lessen the burden of diabetes across the globe.

“If patients are able to use the protocols [established in the global guidelines], there is no doubt that complication rates will be reduced. The latest studies show massive reduction of complication rates of microvascular disease are in high risk people where multiple areas of care are managed,” Professor Home said. “If we can put these resources in the face of the massive expansion of diabetes, we may give people with diabetes a much longer life and higher quality of life.” ■

Professor Philip Home is the joint chair of the IDF Task Force on Clinical Guidelines. He is from the Newcastle Diabetes Center and University of Newcastle upon Tyne and can be reached at philip.home@newcastle.ac.uk.



1. International Diabetes Federation. Diabetes Atlas. 2nd edition. 2003.

2. IDF Clinical Guidelines Task Force. Global Guideline for Type 2 Diabetes. Brussels: International Diabetes Federation, 2005. ISBN 2-930229-43-8.

3. Stratton IM, Adler AI, Neil HAW, et al, on behalf of the UK Prospective Diabetes Study Group. Association of glycaemia with macrovascular and microvascular complications of type 2 diabetes (UKPDS 35): prospective observational study. *BMJ* 2000; 321: 405-412.

4. International Diabetes Federation Web site. Diabetes Atlas: Complications. Available at: <http://www.eatlas.idf.org/Complications>. Accessed October 25, 2005.

5. Liebl L, Mata M, Eschwege E. Evaluation of risk factors for the development of complications in type 2 diabetes in Europe. *Diabetologia*. 2002;45(suppl):23-28.