

An approach to implementing international diabetes guidelines

Diabetes is a common, costly and ever-increasing health problem, with chronic complications that result in a heavy socioeconomic burden for people with the disease, the health care system and society (International Diabetes Foundation, 2007; Ringborg et al, 2009). Chronic complications, the major cause of morbidity, premature mortality and costs of diabetes, can be significantly reduced by control of blood glucose and associated cardiovascular risk factors (Kelly et al, 2009; Ray et al, 2009). The cost of these treatments is within the range of currently accepted preventative interventions (Gæde et al, 2008). Despite the available evidence, prevention strategies have not been widely incorporated into clinical practice and the care received by many people with diabetes is less than optimal worldwide (Chan et al, 2009).

Several factors contribute to this disappointing situation, including health systems unable to cope with caring for chronic diseases and unwilling to pay for preventative interventions. Practitioner factors include inadequate knowledge and experience and inappropriate provider attitude to guidelines. Patient factors include poor compliance with self-care and treatment and scant attention to patient education and to the psychological impact of diabetes. Lack of a culture of continuous evaluation of outcomes with concomitant treatment adjustments is another contributing factor. Effective models of diabetes care include system changes and patient and physician education. A review of educational interventions in chronic disease management programs concluded that most programs directed at providers and patients improve care. Further, a recent report on cost-effectiveness of two guideline-based strategies in the Netherlands concluded that both were cost-effective compared with usual care.

The International Diabetes Federation (IDF) has developed and disseminated

an evidence-based 'Global Guideline for Type 2 Diabetes' (International Diabetes Foundation, 2005). The guideline specifically addresses suboptimal care resulting from limitations in human and material resources in order to make the guideline globally relevant for health-care systems with different levels of organization, settings and budget. This was achieved by developing recommendations according to three levels of care:

- Minimal care: attempts to achieve the major objectives of good diabetes care in a setting of limited resources (medications, personnel, technologies). This is the lowest level of care which any person with diabetes should receive and in many parts of the world not even this level of care is being achieved

- Standard care: evidence-based, cost-effective care for people with diabetes in countries with a well developed service base and with health-care funding systems consuming a significant part of their national wealth

- Comprehensive care: care provided in a health care setting with considerable resources and for which the evidence-base for the more expensive therapies and new technologies is often weak. This uncertainty regarding these therapies makes this level of care unsuitable to be considered main stream and part of routine standard care.

IDF recognizes that successful guideline implementation requires more than its formulation and publication. Together with its wide distribution among organizations worldwide, IDF is holding regional meetings to present the guideline, explain its aims and evidence-based methodology and analyze face-to-face with health-care organizations and providers the difficulties of successful implementation and possible strategies to solve such problems. These meetings are a bilateral and interactive education strategy, rather than simple distribution of the guideline, and represent an opportunity for both partners (IDF and Regional

health-care organizations) to exchange ideas, share experiences, discuss different approaches and develop common strategies to overcome common problems.

The recent workshop in Buenos Aires, Argentina is a good example of this strategy. Attendees included representatives of the Health Ministries of Argentina, Brazil, Chile and Uruguay, Argentinean health care organizations and IDF. The guidelines were presented and attendees explained their approach to improving diabetes care and the problems identified for successful implementation and acceptance of care strategies. Small groups considered the pros and cons of the guideline, barriers for successful implementation and possible strategies to overcome such barriers. The groups presented their conclusions in a plenary and final conclusions were agreed.

The meeting stressed the need for joint participation of all subsections, including people with diabetes, to provide continued support for effective implementation of guidelines. It was recognized that guideline implementation requires official support from government and health financing entities, adequate distribution of a simplified version for daily use at primary health-care level and training of providers/users. These strategies imply the appropriate allocation of human and economic resources.

Although just a beginning, this type of meeting and the resulting output have several positive effects. Strengthening the relationship between IDF and different health-care organizations, in turn facilitates successful adoption of guidelines. This assists the main aim of IDF to improve the quality of care and quality of life of people with diabetes worldwide. [IJTR](#)

Juan Jose Giagliardino

Director, CENEXA (UNLP-CONICET, PAHO/WHO Collaborating Center), La Plata, Argentina

Stephen Colagiuri

Chair, International Diabetes Taskforce, Boden
Institute of Obesity, Nutrition and Exercise,
University of Sydney, Sydney, Australia

Author for correspondence:

Stephen Colagiuri

Boden Institute of Obesity Nutrition and Exercise
K25 - Medical Foundation Building
The University of Sydney
NSW 2006 Australia
Email: scolagiuri@usyd.edu.au

- Chan JCN, Gagliardino JJ, Baik SH et al (2009) Multifaceted Determinants for Achieving Glycemic Control. The International Diabetes Management Practice Study (IDMPS). *Diabetes Care* **32**(2): 227–33
- Gaede P, Valentine WJ, Palmer AJ et al (2008) Cost-effectiveness of intensified versus conventional multifactorial intervention in type 2 diabetes: results and projections from the Steno-2 Study. *Diabetes Care* **31**(8):1510–15
- International Diabetes Federation (2005) *Global Guideline for Type 2 Diabetes*. International Diabetes Federation, Brussels
- International Diabetes Federation (2007) IDF diabetes atlas—prevalence estimates of diabetes mellitus. Online. <http://www.atlas.idf.org> (accessed 20 August 2009)
- Kelly TN, Bazzano LA, Fonseca VA, Thethi TK, Reynolds K, He J (2009) Glucose Control and Cardiovascular Disease in Type 2 Diabetes. *Ann Intern Med* [Epub ahead of print]
- Ray KK, Seshasai SRK, Wijesuriya S et al (2009) Effect of intensive control of glucose on cardiovascular outcomes and death in patients with diabetes mellitus: a meta-analysis of randomised controlled trials. *Lancet* **373**(9677): 1765–1772
- Ringborg A, Cropet C, Jönsson B, Gagliardino JJ, Ramachandran A, Lindgren P (2009) Resource use associated with type 2 diabetes in Asia, Latin America, the Middle East and Africa: results from the International Diabetes Management Practices Study (IDMPS). *Int J Clin Pract* **63**(7): 997–1007