

Practical guidance on the management of south Asian people with diabetes

A report from the 11th Annual Conference of the South Asian Health Foundation, held on 29–30 April 2010 at the Hotel Ibis, Earls Court, London. The gold sponsor of the event was MSD Diabetes, who had no input into the content of the meeting or this report. This meeting report was generated independently by the publisher and conference speakers, with whom editorial control rests.

“This conference aims to address one of the most pressing healthcare issues facing south Asian (SA) people – diabetes”, said Professor Sudhesh Kumar (Professor of Medicine and Associate Dean, University of Warwick), as he welcomed delegates on behalf of Dr Wasim Hanif (Chair of the South Asian Health Foundation [SAHF] Diabetes Working Group), who unfortunately could not attend the conference.

Closed conference

Definitions and “cut-off” for obesity and waist circumference in SA people

This closed session aimed to explore the issue of obesity, an increasingly important health concern in SA populations. The session was originally meant to be “closed” to all but SAHF invitees, however many delegates opted to join the event and were warmly welcomed.

“SA people have lower obesity cut-offs than white Caucasian people”, began Professor Sonia Anand (Professor of Medicine, McMaster University, Canada). Having explored the options for adiposity measurement, such as waist circumference (WC), hip circumference, waist-hip ratio (WHR) and BMI, Professor Anand concluded that “WHR or WC are the optimal abdominal obesity metrics for predicting type 2 diabetes (T2D) and myocardial risk”.

Next to talk was Professor Sudhesh Kumar, discussing the Indian consensus document on the diagnosis and management of obesity (Misra et al, 2009), the recommendations of which have been adopted by the Indian Government. He explored the non-pharmacological, pharmacological and surgical options, pointing out that there are no recommendations regarding diet. A SAHF position statement on the subject is available (www.sahf.org.uk).

Playing devil’s advocate, Professor Naveed Sattar (Professor in Metabolic Medicine and Honorary Consultant, Glasgow) asked whether new, even lower cut-offs for obesity were even necessary, suggesting that excess diabetes and vascular risk is captured simply through *being of*

Around 25% of the world’s population with diabetes is of south Asian origin, which presents a growing challenge to healthcare providers across the globe. This conference, on behalf of the South Asian Health Foundation, aimed to facilitate collaboration between individuals and groups involved in the prevention and management of south Asian people with, or at risk of, diabetes. This meeting report summarises the event, which included discussions on causation, epidemiology, good practice, current guidelines and concepts with regard to equitable healthcare delivery for south Asian populations living in the UK.

SA origin, therefore negating the need for risk stratification through adiposity measures.

Professor Peter Whincup (Professor of Cardiovascular Epidemiology, St George’s University of London) then discussed the Child Heart and Health Study in England (CHASE), a study of 4796 children aged 9–10 years, which found that adiposity levels (based on skinfolds and bioimpedance) were higher in SA than white European children, and that BMI provided misleading comparisons of adiposity between the groups (Whincup et al, 2010).

Vascular screening, therapeutic options and bariatric surgery: Issues and challenges

Professor Kamlesh Khunti (Professor of Diabetes and Vascular Medicine, University of Leicester) provided a comprehensive overview of vascular screening and related issues in SA people, such as age, BMI and WC, screening uptake and risk scores, suggesting that screening should start at 25 years of age in SA people. “Substantially lower obesity cut-off points are required for SA people to detect an equivalent level of dysglycaemia and dyslipidaemia,” he concluded, adding: “there is a need to determine optimum HbA_{1c} cut points for screening in SA people”.

Following this, Professor Sudhesh Kumar explored the causes of obesity, stressing the need for cultural change as the main factor in obesity reduction. Outlining current guidance and therapeutic options for obesity, including bariatric surgery, Professor Kumar summarised that “interventions for high-risk groups like SA people are needed”, and that clinicians must use judgement when considering individual risk versus benefit with specific treatment options.

Open conference

Implementing diabetes prevention programmes in Australia

Professor Prasuna Reddy (Chair of Rural Mental Health and Director of Research, Greater Health, Melbourne) discussed the positive outcomes from a group diabetes prevention programme in Australia in terms of weight loss, WC, lipids and blood glucose at 12 months. Turning to depression in diabetes, Professor Reddy highlighted the associations between these two conditions, showing how depression and anxiety can both improve through diabetes prevention.

Diet and management of diabetes complications in SA people

“Increased metabolic risk in SA people stems from preconceptional nutritional status”, said Dr Ponnusamy Saravanan (Associate Clinical Professor and Consultant Physician, Warwick), opening his talk on diet and micronutrients. This is likely to be mediated through the crucial role that B12 and folic acid play in DNA methylation – so-called “epigenetic regulation” – and the implications of any imbalance in these micronutrients. Dr Saravanan discussed the SA diet and physical characteristics that contribute to B12 and folate imbalances, and concluded by explaining how such imbalances increase the offspring’s risk of CV disease (CVD) and may be mediated through obesity.

Dr Paul O’Hare (Director of Quality Assurance, University of Warwick) then discussed diabetic retinopathy (DR) in SA people in relation to the UKADS (UK Asian Diabetes Study) retinopathy sub-study (Raymond et al, 2009).

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The results suggest that age of onset of T2D is approximately 10 years earlier in SA people and that prevalence of any DR and sight-threatening retinopathy is significantly higher in SA people compared with white European people, highlighting the need for more aggressive control of risk factors for DR among SA populations. Dr O'Hare finished with discussion of a study that highlighted the benefits of a link worker on improving attendance for DR screening.

SA people in primary care

Mr Neil Raymond (Associate Professor in Epidemiology, University of Warwick) opened the session, discussing CV mortality in SA people with diabetes. He gave comprehensive overview of the UKADS sub-study (Bellary et al, 2010), illustrating how SA people have a higher CV risk with an earlier age of onset of T2D than white European people.

Speaking on the experiences and expectations of SA people in primary care, Professor Aziz Sheikh (Professor of Primary Care Research and Development, The University of Edinburgh) then explored the evidence of ethnic health inequalities with regard to quality of care in general practice, showing that SA people generally report poorer experiences than other populations. He explored the changing policy agenda, highlighting that, while progress is being made, much still needs to be done with regard to inequalities and T2D prevention in SA populations (Hippisley-Cox et al, 2009; Sheikh, 2009).

Epidemiology, diagnosis and screening for diabetes in SA people

Opening the session, Professor Nish Chaturvedi (Professor of Clinical Epidemiology, Imperial College London) provided a thorough discourse on the epidemiology of T2D in SA populations around the world, moving on to possible determinants of increased T2D risk, such as malnutrition *in utero*, accelerated growth in infancy and adult obesity. Discussion then turned to the implications this has for health, with concluding remarks regarding prevention and treatment through lifestyle modification and metformin provision.

Looking specifically at screening and diagnosis of T2D and impaired glucose regulation (IGR) in SA people, Professor Kamlesh Khunti began by discussing the NHS Health Check programme. "Screening for T2D and IGR, followed by intervention, is cost-effective even in SA people", he said, recommending again that screening should

start at 25 years of age. Moving on to diabetes diagnosis, Professor Khunti looked at the need for different obesity cut-off points for SA people and diagnostic criteria, describing the merits and drawbacks of current diagnostic criteria, as well as the implications of diagnosis using HbA_{1c} in SA populations.

The final talk of the morning was given by Professor Anthony Barnett (Professor of Medicine, University of Birmingham), who discussed achieving optimal glycaemic control safely in SA people with T2D. Professor Barnett began by stressing the importance of tight, early glycaemic control in reducing the risk of vascular complications (Holman et al, 2008), before discussing the pros and cons of the antidiabetes drug options available. Professor Barnett then explored the current pharmacological recommendations given by NICE (2009) for the management of T2D, with the caveat that "guidelines are guidelines, not absolutes", highlighting the importance of personalised care in addressing the specific challenges involved in managing T2D in SA people.

Management of risk factors for diabetes in SA people

Speaking on the management of hypertension in SA people with T2D, Professor Kennedy Cruickshank (Professor of Cardiovascular Medicine and Clinical Epidemiology, University of Manchester) explored the link between blood pressure (BP) and body weight, especially early weight gain in children of SA origin. The main therapy recommendations from current guideline algorithms were then discussed, with a review of the available evidence that underpins the use of each pharmacological agent. Professor Cruickshank concluded with a discussion on the value of arterial stiffness versus BP for predicting CV events, suggesting that arterial stiffness be a focus of future interventions.

Given the increased risk of T2D and CVD in SA people, Professor Sonia Anand then discussed the possibility of using a "polypill" approach to CV risk-factor lowering. The evidence for addressing BP, dyslipidaemia and platelet aggregation with a single pill was discussed, with The Indian Polycap Study (Yusuf et al, 2009) supporting the intervention in reducing multiple risk factors and CVD risk in SA people. Professor Anand concluded by outlining how a polypill has potentially far-reaching benefits with few side-effects, low costs, good medication adherence and low medication error.

Focusing on dyslipidaemia in SA people with T2D, Professor Naveed Sattar gave the final talk of the conference. "The typical lipid profile in SA people is one dominated by slightly higher triglycerides, lower HDL-cholesterol and broadly similar LDL-cholesterol than that found in the general population", he began, considering to what extent this accounts for the excess CVD risk in SA people. Professor Sattar then turned to the evidence base for lipid-lowering in diabetes, and for targeting triglycerides and low HDL-cholesterol. ■

Bellary S et al (2010) *Curr Med Res Opin* **26**: 1873–9

Hippisley-Cox J et al (2009) *BMJ* **338**: b880

Holman RR et al (2008) *N Engl J Med* **359**: 1577–89

Misra A et al (2009) *J Assoc Physicians India* **57**: 163–70

NICE (2009) *Type 2 Diabetes: The Management of Type 2 Diabetes*. NICE, London

Raymond NT et al (2009) *Diabetes Care* **32**: 410–15

Sheikh A (2009) *BMJ* **339**: b3797

Whincup PH et al (2010) *PLoS Med* **27**: e1000263

Yusuf S et al (2009) *Lancet* **373**: 1341–51

Parallel workshops

Workshop 1: Education about diabetes in south Asian people

This practical workshop by Dr Vinod Patel (Associate Professor in Clinical Skills, University of Warwick) aimed to share best practice in diabetes care for south Asian (SA). The session provided useful information on improving patient education and day-to-day self-management tips, care plans, multifactorial intervention education, diabetes prevention and management of diabetes during special times, e.g. Ramadan.

Workshop 2: Gestational diabetes in south Asian women

Dr Aresh Anwar (Consultant Diabetologist, Coventry) began by discussing how the ongoing explosion in diabetes prevalence affects people of all age categories. He highlighted, however, that outcomes for women with diabetes remain suboptimal. This workshop provided an interactive session that shared experiences, challenges and solutions to an issue that is integral to diabetes in SA people.

Workshop 3: Culture and religion in diabetes management

Culture is a complex concept, and to understand its impact on diabetes a number of factors need to be considered. Using Ramadan as an example, Dr Paramjit Gill (Reader in Primary Care Research and GP, Birmingham) and Alia Gilani (Health Inequalities Pharmacist, Glasgow) explored issues including religion, diet, physical activity, tobacco use and language barriers, and their impact on diabetes care.