

42nd Annual Meeting of the European Association for the Study of Diabetes

Copenhagen, Denmark, and Malmö, Sweden, 14–17 September 2006

Rosiglitazone reduces progression from impaired glucose metabolism to diabetes

In the largest diabetes prevention trial ever conducted, rosiglitazone (Avandia; GlaxoSmithKline, Uxbridge) was linked to a reduced risk of developing type 2 diabetes in people with pre-diabetes.

The Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) study evaluated the likelihood of progression to type 2 diabetes over a 3-year median follow-up period among 5269 people with impaired fasting glucose or impaired glucose tolerance.

Participants were randomised to rosiglitazone (8 mg daily) or placebo and to ramipril (15 mg daily) or placebo – in a 2-by-2 factorial design – and were assessed every 6 months for 3–5 years to determine if rosiglitazone or ramipril led to a decrease in the incidence of type 2 diabetes.

Rosiglitazone reduced the risk of developing type 2 diabetes by 62% ($P < 0.0001$) relative to placebo. The reduction was additive to standard counselling on healthy eating and exercise.

Ramipril did not significantly reduce the risk of diabetes, which was developed by 18% of participants on that drug and 20% on placebo.

Dr Hertzler Gerstein, Co-principal Investigator and a Professor of Medicine at McMaster University, Canada, said the results have major implications for future health care. 'If we can prevent diabetes, we may also be able to

prevent the serious cardiovascular, eye, kidney, and other health consequences of diabetes,' he stated. 'The DREAM results show that adding rosiglitazone to healthy lifestyle advice substantially lowers the chance of getting diabetes in people at high risk for the disease.'

'The world is facing a major diabetes epidemic,' said Professor Rury Holman, European Co-chair of DREAM and a Professor of Diabetic Medicine at University of Oxford. 'The knowledge that rosiglitazone can reduce the risk of people developing diabetes provides another opportunity to help tackle this growing healthcare problem.'

'Diabetes dramatically increases the risk of cardiovascular and other problems' said Dr Salim Yusuf, Co-principal Investigator and a Professor of Medicine at McMaster University. 'Although ramipril did not prevent diabetes, the beneficial metabolic effects that we found may add to the clinical benefits of ACE inhibitors seen in HOPE and other studies.'

The DREAM study was conducted by the Population Health Research Institute at the Michael G DeGroot School of Medicine at McMaster University and Hamilton Health Sciences in Hamilton, Ontario. The study was funded by a peer-reviewed grant from the Canadian Institutes of Health Research, as well as by GlaxoSmithKline, Sanofi-Aventis and King Pharmaceuticals.

Exubera shows efficacy in people with chest infections

Adults with diabetes who used inhaled insulin human (Exubera; Pfizer, Walton-on-the-Hill) were able to safely maintain good blood glucose control even if they developed a respiratory infection or were exposed passively to cigarette smoke. These findings were presented at the conference.

In addition, according to a retrospective analysis of 14 phase 2 and 3 clinical studies, inhaled insulin human was deemed to be well tolerated and efficacious, even during respiratory illness in adults with type 1 or type 2 diabetes.

Another new study found that

while passive smoke exposure could result in decreased absorption, inhaled insulin human could be used by people with diabetes who were exposed to a smoky environment.

'This information is important for healthcare providers who have prescribed or are considering prescribing inhaled insulin human to their patients,' said Professor Philippe Camus, Lead Investigator from the University Medical Center, Dijon, France. 'It shows that the efficacy and tolerability of inhaled insulin human remain unchanged even if patients develop a cold or the flu.'

Touring bus launched to raise awareness of diabetes

On the occasion of this annual meeting Novo Nordisk launched a 'tour bus' – the Changing Diabetes Bus.

The bus forms a part of the company's support for the call for a United Nations Resolution on diabetes. It aims to raise awareness by stopping at,

for example, parliaments and schools in Europe, Asia and North America. The bus will spend the next 18 months touring these areas.

Visitors to the bus will be given the chance to have a diabetes test or a body mass index measurement done.

Ezetimibe and simvastatin more effective at reducing LDL

The combination of ezetimibe 10 mg and simvastatin 20 mg (Inegy; MSD, Hodderson) produces a significantly greater reduction in LDL cholesterol in people with type 2 diabetes compared with atorvastatin 10 mg and 20 mg (–53.6% versus –38.3% [$P < 0.001$] and –44.6% [$P < 0.001$]

respectively).

It was also reported that significantly more patients treated with ezetimibe and simvastatin achieved the National Cholesterol Education Program optimal LDL cholesterol goal (< 1.8 mmol/l) compared with atorvastatin 10 mg and 20 mg ($P < 0.001$).

ESC and EASD announce joint guidelines on diabetes and CVD

The European Society of Cardiology (ESC) and the European Association for the Study of Diabetes (EASD) have developed the first evidence-based guidelines covering both diabetes and cardiovascular disease (CVD). The news was announced by a group including Professor Ele Ferrannini, President of the EASD (key messages are on the right).

Fourteen experts from all over Europe were assigned to draft manuscripts, according to their specific area of expertise. The guidelines were then formulated and reviewed by 18 experts from the ESC and EASD. Approximately 1500 comments and suggestions were dealt with by the writing group.

There are a total of 72 recommendations. A full text, including 711 references, will appear on the website www.escardio.org.

escardio.org. Pocket guidelines will also be produced in the near future.

These guidelines will complement the joint American Diabetes Association and EASD consensus algorithm, developed for the treatment of type 2 diabetes [Nathan DM et al (2006) *Diabetologia* 49(8): 1711–21]. Nathan et al acknowledge that while diet and exercise are undoubtedly beneficial in the control of the condition, these lifestyle interventions alone often fail to achieve or maintain long-term metabolic goals. They suggest that metformin therapy should be initiated concurrent with lifestyle intervention at diagnosis. However, this is unlicensed and metformin is currently only indicated for type 2 diabetes mellitus, particularly in overweight patients, when diet and exercise alone do not result in adequate glycaemic control.

Key points of the guidelines

- 1 Diabetes and CVD are much more common than imagined.
- 2 The negative impact of dysglycaemia is apparent before the onset of diabetes.
- 3 The prognosis is principally amenable to major progress, yet still unfavourable.
- 4 An investigational algorithm needs to be employed to detect the alternate side of the disease either starting from diabetes or from coronary artery disease.
- 5 An oral glucose tolerance test is the best method to diagnose previously unknown diabetes or pre-diabetes.
- 6 To minimise resources, primary screening for the potential of diabetes can be effectively done by a non-invasive risk score to define high risk.
- 7 Prevention both of diabetes and CVD is possible.
- 8 Therapeutic success depends on collaboration across speciality borders.
- 9 Treatment comprises multifactorial risk intervention and targeted management of CVD.
- 10 Structured lifestyle counselling is a very important therapy for these patients and needs to be improved.
- 11 Targets for treating blood pressure, blood glucose and lipids have been defined and are more strict than before.
- 12 The joint ESC/EASD approach provides the state-of-the-art evidence base.

Other meetings

Nurses hear about support for United Nations resolution

Nearly 300 nurses from across Europe recently met at the Third European Diabetes Nursing Conference, in Leverkusen, Germany, to discuss the role of choice in diabetes care. The conference was hosted by Bayer HealthCare Diabetes Care Division Europe and chaired by Anne-Marie Felton (Co-founder and Chair of the Federation of European Nurses in Diabetes [FEND]).

In the welcome address to the delegates by Sandra Peterson (President of Diabetes Care, Bayer HealthCare), it was formally announced that Bayer HealthCare has joined Unite for Diabetes as a corporate sponsor. Unite for Diabetes is a global campaign aimed at securing a UN resolution

on diabetes in time for World Diabetes Day (14 November) in 2007. 'Diabetes is a great burden and responsibility and by 2030 more than 360 million people are expected to be affected,' she said. 'Our aim is to continue to help people with diabetes to lead better, longer lives.'

Anne-Marie Felton also welcomed the delegates to the conference, and in her introductory presentation further emphasised the importance of raising global awareness of diabetes. In addition, she explained, a recent document of recommendations for an EU policy on diabetes has formally recognised the role played by European nurses working in diabetes – representing a 'historical milestone'.

Government supports work to combat diabetes in Asian people

Pioneering work to help combat diabetes in Warwickshire's South Asian community has received a government seal of approval. Health Minister Rosie Winterton, MP, visited health and community leaders at the Gurdwara Temple, Leamington Spa on 17 October.

A local campaign has been developed to try and stem the high instances of diabetes, strokes and heart attacks within this community. A key feature of the campaign has been the production of a DVD (Apnee Sehat [Our Health]), which was launched earlier in the year.

Compliance issues discussed by nurses

Why do so many patients persistently fail to comply with their treatment? This is the question that has been addressed at the 'Target Compliance' roadshows involving diabetes specialist nurses and practice nurses from across the UK.

So far, 243 meetings have taken place since last summer. Each meeting focused on the psychology of improving compliance in both patients and health care professionals. Delegates worked through real case studies, applying principles of social influence.