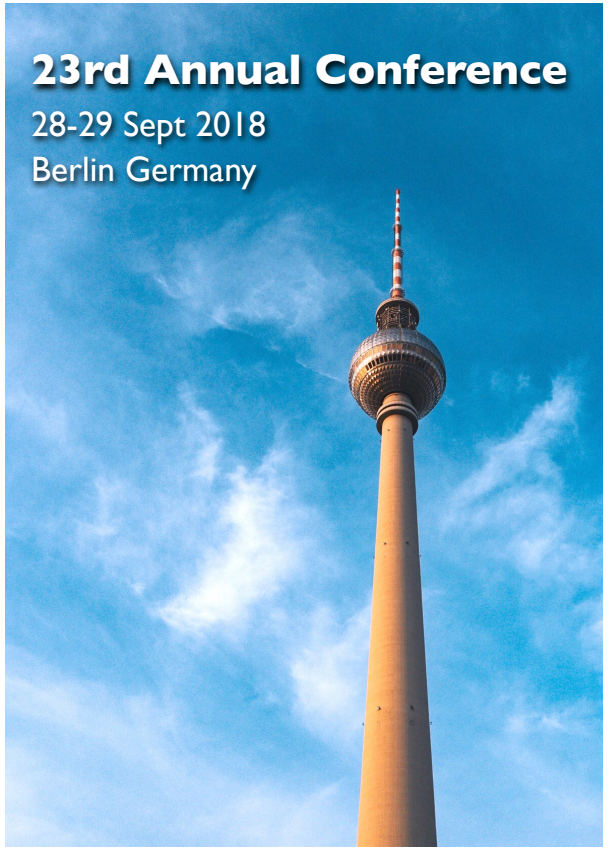
FEND

Foundation of European Nurses in Diabetes



unite for diabetes

Programme design and layout M J Felton

FEND SPONSORS

The Foundation of European Nurses in Diabetes acknowledges and thanks the following sponsors for their continuing support and commitment to FEND core activities:

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ADDITIONAL CONFERENCE SUPPORT

- Webcast recordings - *supported by Bayer*
- Conference bags - *courtesy of Menarini Italy*

CONFERENCE WEBCASTS

Please note that the keynote presentations will be available to view on the FEND website shortly after the conference. (slides plus presenter video).

Therefore you are courteously requested not to take photos or recordings of presentations.

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FEND Mission Statement

The objects for which FEND is established are:

- To promote for the public benefit improvements in the health and treatment of sufferers from diabetes by the development and promotion of the role of the diabetes nurse specialist throughout Europe.
- To promote for the public benefit the education and training of nurses working in diabetes care throughout Europe, by the development and support of training programmes, including the organisation of conferences and symposia, to further such programmes and the dissemination of information relating to the proceedings at such conferences or symposia.

Welcome

Dear Participants

On behalf of the Executive committee of FEND it is our pleasure to welcome you most warmly to the FEND 23rd Annual Conference and the city of Berlin.

The conference reflects a number of the complexities and urgent challenges of the diabetes epidemic in Europe. The patient experience is represented and reflected in this year's programme. It marks the significant contribution that people with diabetes make in influencing the provision of care and the characteristics of care.

FEND continues to play a visible role in advocacy, policy development and implementation.

FEND will engage fully in the new European Diabetes Forum, a significant initiative of EASD. It is timely and highly pertinent.

The specialty of diabetes nursing needs to be fully realised in all countries of Europe. To meet this challenge FEND continues to provide an academically accredited MSc programme led by Prof Angus Forbes, FEND Professor in diabetes nursing, research and education. The FEND Doctoral Fellowships, established three years ago, continues with three new FEND Fellows. These programmes are available to all members of FEND and it is noteworthy that the cost of these unique programmes is fully funded by FEND.

We thank our distinguished international speakers for their commitment and generosity of time. We thank Prof Juleen Zierath, President EASD for her courtesy and support in permitting this conference to be included in the programme of meetings on the occasion of 54th Annual Meeting of EASD.

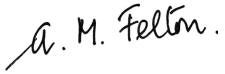
We acknowledge with profound appreciation the continuing support of our key sponsors for all of FEND's core activities.

Your attendance at this conference represents diabetes nursing from Europe and beyond – a truly international gathering and evidence of the commitment of the nursing profession to people with diabetes.

We thank you for your presence and active participation – the conference is now in your hands.

Kristin de Backer
FEND Chairman

Anne-Marie Felton
FEND President



Friday 28 September 2018

0730	*Registration*	
0845	Welcome and Opening Remarks	*FEND Chairman* Kristin de Backer *FEND President* Anne-Marie Felton *EASD Scientific Officer* Dr Lena Wedeken
		Session Chairs Prof Regina Wredling Kristin de Backer
0900	**Portrait of Finnish Diabetes Nurses Association**	Päivi Lehtimäki
0930	**The Role of EMA in Approval of Medicines**	Heidi Janssen
1000	**Psychological Treatment for PWD to Improve Motivation for Self-Management**	Dr Kirsty Winkley
1030	*Refreshments*	
		Session Chairs Debbie Jones Dr Lena Wedeken
1115	**A Personal Closed Loop System**	Dr Katarina Braune Adrian Tappe
1215	**Effect of Continuous Glucose Monitoring on Glycemic Control**	Sara Charleer
1245	*Lunch*	
		Session Chairs Dr Arja Halkoaho Ana Paiva
1400	**Assessing Smartphone Apps for Diabetes Self-Management Education**	Linda Horsted Raimond
1430	**Perspective of the User**	Dmitri Katz
1500	**Social Discrimination and Stigma and its Impact on People Living with Diabetes**	Prof Angus Forbes
1530	*Refreshments*	
		Session Chair Anne-Marie Felton
1600	**The European Diabetes Forum**	Prof John Nolan
1630	**Lilly Research Award**	Maurizio Guidi
1930	**Conference Reception** Hotel Ellington bar & lounge	

Saturday 29 September 2018

		Session Chairs Linda Cann Simon O'Neil
0900	**Remission of T2 Diabetes: the Evidence and Challenges of Implementation**	Prof Roy Taylor George Thom David Paul
1030	*Refreshments*	
		Session Chairs Birtha Hansen Dr Mette Due-Christensen
1115	**Key Learnings From Cardiovascular Outcome Trials (CVOTs) in Diabetes**	Prof Oliver Schnell
1145	**Oral Presentations: 1 (see p. 19)** **2 (see p. 20)** **3 (see p. 21)**	Carla Cabré Mariana Pires Anna Reid
1245	*Lunch*	
		Session Chair Rita Forde
1400	**Type 2 and Gestational Diabetes**	Judith Parsons
1445	**Guided Poster Tour** *facilitators: Deirdre Kyne-Grzebalski, Dr Anne-Marie Wangel*	
1545	*Refreshments*	
		Session Chair Kristin de Backer
1615	**Trans National Cooperation & Collaboration**	Anne-Marie Felton
1630	**FEND Award Ceremony & Closing Remarks**	Kristin de Backer

THE ROLE OF EMA IN APPROVAL OF MEDICINES

Heidi Janssen
Head of Endocrinology, Metabolism and Cardiovascular at the European Medicines Agency, London

Since 2005, the approval of medicines containing a new active substance for the treatment of diabetes are made compulsory via the centralised procedure at the European Medicines Agency (EMA). Since then more than 50 medicines for the treatment of type 1 and type 2 diabetes have been approved by the EMA.

The centralised procedure allows the marketing of a medicine on the basis of a single EU-wide assessment and marketing authorisation which is valid throughout the EU. Pharmaceutical companies submit a single authorisation application to EMA. The Agency's Committee for Medicinal Products for Human Use (CHMP) carries out a scientific assessment and gives a recommendation to the European Commission on whether or not to grant a marketing authorisation. The use of the centralised procedure is compulsory for most innovative medicines. Diabetes falls within the mandatory scope.

EMA is responsible for the scientific evaluation, supervision and pharmacovigilance of medicines.

Experts participate in the work of EMA as members of its scientific committees, working parties, scientific advisory groups and other ad hoc advisory groups, or as members of the national assessment teams that evaluate medicines. Increasingly, patients and healthcare professionals are involved in the work of the Agency including in the evaluation of medicines.

The European regulatory system for medicines monitors the safety of all medicines that are available on the European market throughout their life span. EMA has a committee dedicated to the safety of medicines — the Pharmacovigilance Risk Assessment Committee, or PRAC.

All suspected side effects that are reported by patients and healthcare professionals must be entered into EudraVigilance, the EU web-based information system operated by EMA that collects, manages and analyses reports of suspected side effects of medicines.

PSYCHOLOGICAL TREATMENT FOR PWD TO IMPROVE GLYCAEMIC CONTROL

Dr Kirsty Winkley
King's College London UK

Diabetes self-management is essential for people with diabetes (PWD) to achieve recommended levels of glycaemic control in order to minimise the impact of diabetes complications and cardiovascular disease. However, PWD need the necessary knowledge, skills and motivation to do this. Whilst knowledge and skills can be taught using structured education programmes motivation comes from within, may vary from person to person and can easily be affected by emotional issues common to PWD such as depression, anxiety, denial and burn-out. Psychological treatments may help with this as they utilise the therapeutic alliance between the patient and therapist to bring about change in emotional and cognitive functioning.

Previous systematic reviews and meta-analyses supported the use of psychological interventions to improve glycaemic control for children and young people with Type 1 diabetes and adults with Type 2 diabetes but not adults with Type 1 diabetes. However, these reviews included studies up to 2003 and since then there have been changes to the types of therapies tested for PWD, improvements made to the reporting of trials and advances in the techniques available to synthesise data from across studies. Therefore the previous systematic reviews and meta-analyses were updated and this lecture will present the results of this evidence synthesis and discuss the main findings which include:

1. Psychological interventions do not improve glycaemic control for children or adults with Type 1 diabetes
2. Psychological interventions improve glycaemic control for adults with Type 2 diabetes but the effect is small and is of borderline clinical significance.

EFFECT OF CONTINUOUS GLUCOSE MONITORING ON GLYCEMIC CONTROL

Sara Charleer[1,2]

[1] Department of Endocrinology, University Hospitals Leuven – KU Leuven, Leuven, Belgium.

[2] PhD fellowship strategic basic research of the Research Foundation – Flanders (FWO), Brussels, Belgium.

Knowing the amount of blood glucose (BG) is essential in type 1 diabetes (T1D) management. For many decades, frequent execution of capillary finger-stick tests was the only way to have a notion of the BG concentration. Unfortunately, many patients do not perform this test frequent enough, missing many glucose fluctuations during daytime, and nights remain unknown territory.

A solution for this lack of information is the use of real-time continuous glucose monitoring (RT-CGM). RT-CGM measures glucose via a glucose sensor in the interstitial fluid 24 hours a day, provides information directly on a hand-held reader or insulin pump about glucose direction, rate of change and provides alarms when glucose is becoming too low or too high. Many randomised controlled trials (RCTs) evaluating RT-CGM-use in patients with T1D show improved glycaemic control, but limited data are available on real-world use. Because of this lacking real-world evidence, reimbursement of RT-CGM is missing in most countries. In Belgium, the RESCUE study prospectively investigated the impact of RT-CGM reimbursement in a T1D population on insulin pump therapy. HbA1c, fear of hypoglycaemia and quality of life improved, and hospitalisation risk and work absenteeism decreased.

Recently, intermittent CGM became available for diabetes patients under the form of Abbott's FreeStyle Libre (FSL) flash glucose monitor. With a simple scan, the patient obtains the glucose concentration, rate of change and glucose history. Due to the novelty of this system, not many RCTs have been conducted investigating the impact on clinical endpoints. As the first country in the world, Belgium provides full reimbursement of the FSL for all patients with T1D. Taking this opportunity, three Belgian hospitals set up the observational, prospective FUTURE study to assess the impact of FSL-use on quality of life and clinical outcome parameters in 2,000 diabetes patients. The first results are expected by the end of 2018.

Managing diabetes using CGM devices will eventually become the standard of care, forming the bridge to the artificial pancreas system, which is still the holy grail in diabetes therapy.

ASSESSING SMARTPHONE APPS FOR DIABETES SELF-MANAGEMENT EDUCATION

Linda Horsted Raimond

Diabetes Nurse Specialist at Steno Diabetes Center Copenhagen

The use of apps for DSME have a positive effect on health behavior, and significantly lowers HbA1c levels and weight. People with diabetes (PWD) are using apps to support the everyday choices they have to make e.g. insulin dosing when exercising, logging blood glucose, interoperability with other devices (CGM, pumps, glucose- meters etc.), carb counting, meal planning/weight loss, information about diabetes, networking with peers, medicine logging/reminder etc.

Apps are most effective when used together with HCPs, and should be part of the diabetes treatment plan. However less than 20% of PWD gets recommended apps by HCPs. Some of the reason being that larger studies on the effect is missing, some apps are not working as intended e.g. giving wrong advice. Furthermore some apps have found to lack evidence-based support when compared with clinical guidelines for DSME. Other reasons include data security issues, and HCPs technical ability to assess apps. With over 1500 different apps for DSME, and different tools to evaluate them, it has become important to discuss how apps are being assessed to understand what can be recommended and implemented in the clinic. This will be the focus in my presentation.

SOCIAL DISCRIMINATION AND STIGMA AND ITS IMPACT ON PEOPLE LIVING WITH DIABETES

Prof Angus Forbes
FEND Chair of Diabetes Nursing at King's College London

This talk will consider the issues of discrimination and stigma as experienced by people with diabetes. The talk will look out the different types of discrimination experienced by people with diabetes, identifying key areas of discrimination and its mediating effect on their diabetes, personal health and psychological and social well-being.

We will identify the role of stigma as a key mechanism driving the observed discrimination by looking at current research evidence for the experience of stigma in the diabetes population. We will also identify how health professionals can contribute to the experience of discrimination by their stigmatising views and beliefs in relation to people with diabetes, particularly those with Type 2 diabetes and those who are obese and the older population. Finally, consideration will be given to what is being done and what could be done to reduce the burden of discrimination in the diabetes population.

THE EUROPEAN DIABETES FORUM

Prof John Nolan
Professor of Endocrinology and Metabolism at Trinity College Dublin

60 million Europeans have diabetes. Most healthcare systems are poorly fitted to the daily needs of the person with diabetes and fail to track the impact on lives, through complications that extend far beyond classical 'diabetology' and into many other medical fields.

The European Association for the Study of Diabetes (EASD) has established the European Diabetes Forum (EUDF), which will address the full landscape of diabetes care in Europe. The Forum will work to coordinate and encourage the energy and ambition of many stakeholders already active in the diabetes field, e.g. people with diabetes and patient organisations, industry, foundations, NGOs, governments, regulators and payers. The initial engagement with the Forum has been positive and widespread. The Forum will take the lead on strategy for future diabetes management and will serve as EASD's conduit for public engagement with political leaders as well as other policy makers around Europe.

The Forum provides a unique opportunity to make it possible for all these contributors to collaborate to advance the agenda of diabetes and advocate policy change to enable the systems of healthcare to cope with the diabetes pandemic, including novel and coordinated approaches to diabetes prevention.

The Forum is a long-term initiative, which takes accountability and ownership for the implementation of key initiatives. It can serve as the central point of contact and follow-up for both European and national policy initiatives. Because healthcare is delivered on a national or subnational level, the establishment of and support to local versions of the Forum's structure on a national level will be key to its success.

REMISSION OF T2 DIABETES: THE EVIDENCE AND CHALLENGES OF IMPLEMENTATION

Prof Roy Taylor & George Thom

on behalf of the DiRECT research team (Glasgow and Newcastle Universities, funded by Diabetes UK)

DiRECT is a randomised controlled trial of a structured weight management programme ('Counterweight-Plus': total diet replacement 830kcal/day formula for weight loss, food reintroduction, weight-loss maintenance), compared to standard care for people with T2D. The intervention is delivered by nurses and dietitians (whichever available) with 8-hours training and then on-job mentoring by Counterweight specialist dietitians. This is the first such trial ever to set remission of diabetes as its primary outcome, powered to establish whether a clinically significant 22% remission rate could be achieved. Detailed metabolic and magnetic resonance studies were included to elucidate mechanisms of remission.

Results at 12 months from 298 randomised patients, BMI>27kg/m2, showed 46% had remission of T2D, off drug treatments. For those who managed to lose >15kg, 86% were in remission, irrespective of age, sex or socioeconomic status. Lower HbA1c, and fewer anti-diabetes drugs at baseline predicted more remissions. Remissions involved sustained normalisation of liver fat, decreased liver synthesis of fat and decreased pancreatic fat, with improved insulin secretion. This confirms most T2D as a reversible metabolic consequence of 'obesity' (the disease-process, not BMI>30), developing when vital organs (liver, pancreas) are damaged by ectopic fat accumulation.

DiRECT will continue to collect data for 5 years. However it is already clear, with almost 9/10 patients able to achieve remission by tackling the underlying disease-process, that this is a realistic and valuable management target which should be offered to patients. Some are successful with self-help approaches, but the evidence-based DiRECT intervention can readily be delivered by community-based nurses.

KEY LEARNINGS FROM CARDIOVASCULAR OUTCOME TRIALS (CVOTS) IN DIABETES

Prof Oliver Schnell

Ludwig-Maximilians-University, Munich

Cardiovascular disease (CVD) is one of the most common diabetes-associated complications, as well as a leading cause for death in type 2 diabetes patients (T2D). In 2008 the US Food and Drug Administration introduced a guidance for industry that requires the investigation of cardiovascular outcomes of glucose-lowering medications in diabetic patients with a high cardiovascular risk. Since then, an increasing number of cardiovascular outcome trials have been completed for members of the SGLT-2 and DPP4 inhibitor and GLP-1 receptor agonist classes. In the CVOTs, combined primary CV endpoints are evaluated, which include CV mortality, non-fatal myocardial infarction (MI) and non-fatal stroke (3-point-MACE).

Additional components could be e.g. hospitalization for heart failure (HF), acute coronary syndrome and revascularization procedures. CVOTs, which have been published until now, confirmed cardiovascular safety for all tested anti-hyperglycaemic drugs and, in addition empagliflozin, semaglutide, liraglutide and canagliflozin could even reduce cardiovascular risk in diabetes patients with high cardiovascular risk. Insulin degludec showed non-inferiority to Insulin glargine. In summary, CVOTs have largely broadened our knowledge on effects of novel treatment strategies.

Based on CVOTs a level of evidence has been created for treatment recommendations, which does not exist for metformin or sulfonylureas. A key learning from CVOTs is also, that multidisciplinary team approaches are required for a comprehensive optimized diabetes management. Thus, cross-functional medical education should be enhanced. Treatment decisions and recommendations need to be shared more intensively between medical specialties and the primary care sector. In general, results of CVOTs should soon be reflected in both international and national guidelines.

TYPE 2 AND GESTATIONAL DIABETES

Judith Parsons
Research Fellow at the Faculty of Nursing, Midwifery and Palliative Care at King's College London

Women with gestational diabetes (GDM) are at high risk of developing type 2 diabetes or having further incidences of gestational diabetes in the future. Type 2 diabetes can be delayed or prevented through lifestyle intervention. However, there is a lack of preventative interventions for this population and women with GDM are often not followed up systematically after birth.

We conducted qualitative research to explore women's experiences of GDM, factors that influenced their health behaviour and their views on lifestyle interventions, which led to the development of an intervention to help delay or prevent future diabetes. Semi-structured interviews (n-15) and focus groups with 35 women with previous GDM analysed through Framework Analysis revealed that many women had a strong emotional response to GDM and indicated that experiences during pregnancy could impact women's attentiveness to their diabetes risk after birth. Women's preferences for lifestyle intervention varied, but commonly included a need to address the emotional stress of pregnancy, convey personalised risk in a motivational way, adopt a family-centred approach, focus on women's health rather than just the infant's and develop flexible interventions. Interventions for diabetes prevention in this population need to address factors both at the individual and systemic levels. A lifestyle intervention based on these findings will now be piloted through a feasibility randomised controlled trial, to inform a future full-scale trial.

TRANS NATIONAL COOPERATION & COLLABORATION

Anne-Marie Felton
President FEND

The epidemic of diabetes in Europe challenges health care systems and such challenges can only be overcome through transnational cooperation and collaboration.

FEND has a significant role to play in ensuring that such cooperation is meaningful in terms of changing national policies across all health care systems through collaboration with patient organisations, Ministries of Health, specialist professional societies, relevant pan European organisations and the pharma industries.

It is imperative that we overcome the challenges that such collaboration may present in order to achieve better health outcomes for people with diabetes and to ensure sustainability of evidence based policy in action.

Dr Katarina Braune

Katarina Braune is a Medical Doctor and researcher at the Department of Paediatric Endocrinology and Diabetes of Charité (Berlin, Germany) and vice president of Hacking Health Berlin – a global non-profit organization that drives digital innovation in healthcare. She lives with type 1 diabetes since childhood age and set up her own "Do-it-yourself Artificial Pancreas system" 1 year ago. As a "Junior Clinician Scientist" fellow of the Berlin Institute of Health (BIH), she focuses on digital health and innovation in diabetes. She is also a key member of the EU H2020-funded "OPEN" project – an international research consortium that will investigate clinical, psychosocial, sociocultural and patient-centered aspects of people setting up and using "open source" and "DIY" artificial pancreas systems.

Sara Charleer, MSc

Ever since she was little, Sara already had an interest in science. And since her master's dissertation, she has developed a passion for clinical research and wants to find tangible solutions for patients with diabetes. After obtaining her master's degree in Biomedical Sciences in 2016, Sara started her PhD training at the KU Leuven, Belgium. At her young age, she is already the coordinator of multiple national multicentre studies to explore the use of continuous glucose monitoring devices to improve glycaemic control and quality of life in patients with type 1 diabetes. In regard of this research subject, she presented her study results at international conferences and already first authored two research manuscripts in peer reviewed journals.

Anne-Marie Felton

Anne-Marie Felton was a diabetes specialist nurse for over 20 years. She is currently working within the voluntary sector pro bono, nationally and internationally. She is President and co-founder of FEND.

In 1999 she was appointed a Vice President of Diabetes UK and 2018 a DUK Ambassador. In addition, Anne-Marie is an Honorary consultant at Queen Mary's Hospital, Roehampton, London, UK; past Vice President IDF and past Chair of the IDF Global Advocacy Task Force; a member of the IDF Steering Group for the 'Unite for Diabetes' campaign that resulted in the passage of the United Nations Resolution on diabetes in December 2006; a member of the Alliance for European Diabetes Research (EURADIA); was co-chair of European Coalition for Diabetes 2012 (ECD). Anne-Marie was Chair of the Organising Committee for IDF World Diabetes Congress (WDC) 2013 in Melbourne and also IDF WDC 2015 in Vancouver. She was an invited speaker to the European Commission DG Sanco summit on Chronic Disease April 2014. She is co-chair of the Policy Puzzle 4th edition.

In September 2015 she was appointed an Honorary member of EASD (European Association for the Study of Diabetes).

Anne has a special interest in political advocacy for people with diabetes and the recognition of Diabetes Specialist Nurses.

Prof Angus Forbes

Professor Forbes holds the FEND Chair of Diabetes Nursing at King's College London and holds an honorary post as a specialist diabetes nurse at King's College Hospital.

Prof Forbes is an active researcher in diabetes, recent projects include: diabetes prevention in women with GDM; factors contributing to mortality in older people; preconception care in women with Type 2 diabetes; a national scoping project on diabetes care and organisation; the relationship between cognitive impairment and diabetic retinopathy; supporting patients in insulin intensification; eye screening uptake; structured education uptake; evaluating a telecare intervention to support weight loss in type 2 diabetes; the bio-psychosocial impact of new onset Type 1 diabetes in adults; and a trial of virtual clinics to improve primary care based diabetes outcomes.

Angus has been NHS Diabetes London regional champion for older people with diabetes and is currently a Vice President of the International Diabetes Federation. Angus was previously: a senior lecturer in diabetes at King's College London; a lecturer in health services research at University College London Medical School; and a health visitor and district nurse in East London.

Mrs Heidi Janssen

- since 2011 Head of Endocrinology, Metabolism and Cardiovascular at the European Medicines Agency, London
- Joined the European Medicines Agency in June 2002 as a Product Team Leader in the Post-Authorisation Unit and in 2009 in the Human Medicines and Development Unit
- 1999 – 2002 Positions in industry in manufacturing and development of clinical trial material and clinical pharmacology
- Graduated in 1998 as pharmacist at the Free University of Brussels (VUB).
- 1999: Master in industrial pharmacy. Registered in December 1999 as industrial pharmacist (Belgium)..

Dmitri Katz

Dmitri Katz researches the use of apps, data, and connected technologies to assist in diabetes self-management. He grew up in San Francisco and re-located to Berlin in 2002. As a T1 for over 35 years and more recently an academic researcher, he is especially interested in how future diabetes products can be designed to better meet user needs. He is currently completing his PhD at The Open University in the UK, was a 2016 Google Europe Scholar, has consulted with Roche Diabetes Care, hosts the Berlin Diabetes and Technology Meetup, and is always open for a good discussion on diabetes start-up ideas. He will talk on his personal experiences with diabetes technology through the years, and why he still hasn't found a diabetes app that meets his needs.

Prof John Nolan

John Nolan is Professor of Endocrinology and Metabolism at Trinity College Dublin. A graduate of University College Dublin, he trained in general medicine and completed training in Endocrinology and Metabolism at the University of California San Diego (UCSD). He has held faculty positions at UCSD, Trinity College Dublin, and the University of Copenhagen. From 2011-2016 Professor Nolan was CEO and Head of the Steno Diabetes Center in Copenhagen. He was appointed to position of Chief Scientific Officer at EASD in 2017 before taking up his current role with EASD leading the strategic planning for the new European Diabetes Forum.

Judith Parsons

Judith Parsons is a Research Fellow at the Faculty of Nursing, Midwifery and Palliative Care at King's College London. She has worked in varied public health roles for the UK National Health Service, as a Health Research Officer for The Commonwealth Secretariat and a Health Advisor for a charity in Kampala, Uganda. She has an MA in Health Promotion, Education and International Development and an MSc in Clinical and Public Health Nutrition from University College London. In 2013 she was awarded a Doctoral Fellowship from the National Institute of Health Research to undertake a PhD at King's College London.

Linda Horsted Raimond

Linda H. Raimond works as a Diabetes Nurse Specialist at Steno Diabetes Center Copenhagen. After working several years clinically with diabetes she started her Master of Public Health degree at The University of Copenhagen. After finishing her degree she has worked with numerous projects, while continuously working in the clinic. Projects included implementing psychosocial electronic questionnaires in clinical practice, and participating in development of a mobile application. As a research assistant and project nurse she works with digital interventions for Diabetes Self- Management Education (DSME). She is also active in the type 1 online network, the Danish Diabetes Association and recently she became part of the User-involvement Program at her work.

Her area of interest is understanding the use, perceptions, attitudes, expectations, preferences and implementation of Technology-enabled Diabetes Self-Management - such as websites, smartphone applications (apps) and Do-It-Yourself (DIY) solutions, from a user and healthcare professional (HCP) perspective.

Prof Oliver Schnell

Professor of Medicine, Ludwig-Maximilians-University, Munich
Forschergruppe Diabetes e.V., Munich
Member of program committees of national and international scientific conferences

Member of other national and international editorial boards
Editor-in-chief of the Journal "Diabetes Metabolism and the Heart"

Member of numerous steering and adjudication committees
President Annual Meeting of the D&CVD EASD Study Group 2015

President of the 2nd (2016) and the 3rd (2017) CVOT Summit of the D&CVD EASD Study Group in Munich Secretary Local Organising Committee, European Association for the Study of Diabetes (EASD) 2004
Official instructor of the German Diabetes Association

Adrian Tappe

Adrian Tappe is a computer scientist and very involved in the voluntary development of open source apps and tools that help people with type 1 diabetics. He grew up in Bavaria, Germany and was diagnosed with type 1 in 2004 shortly after having moved to Linz, Austria to start his studies.
His engagement in the #WeAreNotWaiting community began in 2014 when he joined the NightScout and xDrip development team to help parents, caregivers and patients make better use of their CGM systems including remote monitoring and integration into every days electronic devices breaking the barrier of medical devices and the reality patients live in. He is now one of the main developers of AndroidAPS, a free and open source research tool-kit with which patients can build their own closed loop artificial pancreas system controlling a Sooil-Dana or Accu-Chek-Combo pump.

Prof Roy Taylor

Roy Taylor qualified in medicine at the University of Edinburgh, and is Professor of Medicine and Metabolism at Newcastle University and Newcastle Hospitals NHS Trust. He founded the Newcastle Magnetic Resonance Centre in 2006 to develop innovative research techniques for all medical specialities. In 2011 he showed that type 2 diabetes was a simple, reversible condition of excess fat within liver and pancreas. Professor Taylor developed the system now used throught the United Kingdom for screening for diabetic eye disease, with major reduction in blindness due to diabetes across the UK. He has delivered several named lectures including the 2012 Banting Lecture and 2015 Harry Keen Lecture (Diabetes UK) and the 2016 Samuel Gee lecture (Royal College of Physicians of London).

George Thom

George is a Registered Dietitian with over 10 years' experience of working in obesity and type 2 diabetes. He currently works as a Research Associate in the Human Nutrition department at Glasgow University on the Diabetes Remission Clinical Trial (DiRECT). The study demonstrated that Type 2 diabetes remission by significant weight loss is an achievable outcome in a primary care setting, with nearly half of the participants returning to a non-diabetic state. George was responsible for training and supporting Practice Nurses and Dietitian's in delivering the weight management intervention. He is completing his PhD in weight loss maintenance research and also has a bachelors degree in Sports Science.

Dr Kirsty Winkley

Kirsty is a diabetes nurse and health psychologist based at King's College London where she is Reader in Diabetes & Primary Care. She also works clinically as a diabetes specialist nurse within primary care. Her expertise is mainly centred on supporting people with Type 2 diabetes. Her research interests include structured education for diabetes and how to improve attendance and developing psychological interventions that support diabetes self-management. She recently completed a NIHR Health Technology Assessment (HTA) funded evidence synthesis of psychological interventions to improve glycaemic control for PWD and she will share the results of this in her plenary lecture.

1 (ORAL)

THE ROLE OF ADVANCED NURSING IN DIABETES IN THE MANAGEMENT OF TYPE 2 DIABETES IN PRIMARY CARE SETTING. PATIENT AND PROFESSIONAL SATISFACTION

Cabré. C[1] RN, MScN, Colungo. C[123] RN, MScN, Jansà. M[1] RN,PhD, Vinagre. I[1] MD, PhD, Conget. I[1] MD, PhD, Collaborative group Área Integral Salud Barcelona Esquerra (AISBE)

[1] Diabetes Unit. Endocrinology and Nutrition Dpt. Hospital Clínic de Barcelona. (Spain).
[2] Research in Primary Care, Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona (Spain).
[3] Comte Borrell Primary Health-Care Center. Consorci d'Atenció Primària de Salut de l'Eixample (CAPSBE). Barcelona (Spain)

Background: Diabetes Specialist Nurses (DSN) are the first product of the professional evolution of nursing. The role of DSN has been demonstrated essential in the management of diabetes in specialized settings, mainly Endocrinology and Diabetes Units at Hospitals. However, its role in primary care (PC) teams in close collaboration with PC physicians/nurses and endocrinologists is largely unknown.

Aim: To evaluate patient and professional satisfaction, as well as effectiveness, of an educational program (EP) led by a DSN, addressed to Type 2 Diabetes (T2D) patients using > 2 insulin injection/day in PC (EPT2DPC).

Methods: A prospective, longitudinal, before and after intervention study performed between October 2016 to February 2018 in 9 PC centers with the support of specialized care in Endocrinology provided by a reference Hospital.

A structured EPT2DPC was designed to improve metabolic control of T2D patients using > 2 insulin injection/day. Ad-hoc on-site and on-line questionnaires were designed to evaluate T2D patients and health care providers' satisfaction with EPT2DPC.

Results: 184 patients were involved in EPT2DPC (aged 68.4±10.6, 50%men, duration of diabetes 18.0±8.5years) and 158 (86%) completed the 6 months follow-up. The mean reduction in glycosylated hemoglobin (HbA1c) was 1.6% without increasing either weight or hypoglycemia episodes. Of them, the 79.7% answered the satisfaction questionnaire. The whole program was rated positively, the role of DSN being considered essential for 98% of responders. EPT2DPC achieved expectations for 92% of patients. The on-line questionnaire was answered by 84 professionals (33.6% of total, 56 % nurses, 46.4% 10-years professional experience). Collaboration between PC and specialized teams, structure and management of EPT2DPC, inclusion of T2D patients and final results were considered useful or very useful for 86%, 80%, 83% and 90% of PC professionals, respectively.

Conclusions: An educational program aimed to optimize T2D management in PC setting led by a DSN in coordination with specialized care may be successfully implemented and welcomed by patients and PC professionals. In addition to this, it may produces beneficial effects in terms of clinical endpoints.

2 (ORAL)

CHRONIC KIDNEY DISEASE AND DIABETES: RELATION BETWEEN DEPRESSION AND SELF-EFFICACY IN ADULTS WITHOUT RENAL REPLACEMENT THERAPY FOLLOWED IN OUTPATIENT APPOINTMENT

Mariana Pires[1], Maria Saraiva, PhD[2], João Filipe Raposo, M[1]

[1] APDP – Diabetes Portugal - Lisbon, Portugal
[2] Lisbon School of Nursing – ESEL - Lisbon, Portugal

Background

Type 2 Diabetes Mellitus (DM) appears as the main cause of chronic kidney disease (CKD). In addition, different studies of depressive factors of CKD and type 2 DM concluded that patients with this disease are more predisposed to the occurrence of depressive symptoms. This disease, which is often under-diagnosed, has a direct impact on health, quality of life and self-care ability.

Aim

Characterize Depression and Self-efficacy levels of the study participants and compare these levels with some laboratory parameters and some sample characterization variables.

Methods

A sample of 46 respondents, using the General Self-Efficacy and Beck Depressive Index scales and consulted information of clinical process. The results were analyzed in the SPSS program (version 24).

Results

The analysis identified that older people (71%), who live alone (15,2%), without work (56.5%) and with less schooling (50%) are more likely to have depressive symptoms and lower self-efficacy. On the other hand, the relationship between metabolic compensation, the stage of CKD and the tension profile of people with depressive symptoms or their self-efficacy is not so clear. Previous research indicate that depression and self-efficacy are inversely related to each other, because it turns out that 78,3% of the respondents were distributed in the proportion greater self-efficacy, lower level of depressive symptoms and higher depressive symptoms with lower self-efficacy.

Conclusion

We must be more attentive to the first signs in order to perform the correct follow-up, since depression directly influences the person's ability to self-care and the responsibility for his/her treatment. Only in this way it will be possible to understand and to know the patient and their characteristics of self-care, identify their gaps and deficits in self-care. The development of strategies and interventions throughout the process of managing the disease, together with the person, becomes more supportive and effective.

3 (ORAL)

INTEGRATING MENTAL & PHYSICAL HEALTHCARE USING A STRUCTURED APPROACH, IN THE DIABETES CLINIC, IMPROVES IDENTIFICATION OF UNDIAGNOSED COMMON MENTAL HEALTH PROBLEMS

A Reid[1], A Brackenridge Dr[1], Campbell S Ms[2], H Derraz[1], F Ekperuo Ms[1], O Mullings[1], S Pender[1], A Simpson Ms[2], S Singham Ms[1], S Thomas Dr[1], J Hutton Dr[2]

[1] Department of Diabetes & Endocrinology, Guy's and St Thomas' NHS Foundation Trust, London, UK
[2] Department of Psychological Medicine, King's Health Partners, London, UK

Background

People with diabetes have a higher incidence of mental health disorders, which impacts on their ability to self manage their diabetes. We have established a routine and systematic method of detecting anxiety and depression in our insulin pump clinic.

Aim

To audit the detection rate and referral pattern of patients with common mental health problems attending a diabetes clinic following the introduction of a systematic screening tool.

Method

Since January 2016 all patients attending the pump clinic complete a web-based package of screening tools, using an iPad. We use an established screening system, IMPARTS: Integrating Mental & Physical Healthcare: Research Training & Services, which has screening tools for depression (PHQ9) and anxiety (GAD7). We added a care planning tool and Clarke and Gold questionnaire to assess hypoglycaemia awareness. Results are transferred by secure wi-fi to the Electronic Patient Record, available to the clinic health care professional before the consultation. Referral recommendation is made according to local pathways.

Results

Over 7 months 272/276 (99%) patients fully completed the screening. Mean age was 42 yrs (SD12.3), female 168(61%). Depression score: 223(81%) had no symptoms, 21(7%) some symptoms, 30(11%) had probable major depression. 30 referrals were recommended, 7 urgently to liaison psychiatry, 11 routine to liaison psychiatry and 12 to the team psychotherapist. Anxiety score: 224(82%) had no symptoms, 13(5%) had some symptoms and 36(13%) had probable generalised anxiety disorder. 23(8%) had both anxiety and depression. 36 referrals were recommended to the team psychotherapist. High completion rate suggests screening was easy to undertake.

Conclusion

20% of patients attending the pump clinic have symptoms of depression and/or anxiety, often unrecognised. Using IMPARTS is helping us to address this unmet need.

4

EVALUATION OF PARENT KNOWLEDGE IN PREVENTING NOCTURNAL HYPOGLYCEMIA IN TYPE 1 DIABETES

Çövener Özçelik Ç[1], Aktaş E[2], Bostancıklıoğlu A[1], Tunç B[1], Özdemir M[1], Poyraz Ö[1], Yılmaz Ö[1], Kaya Z[1]

1 Marmara University Faculty of Health Sciences Division of Nursing Department of Pediatric Nursing, Istanbul, Turkey
2 Düzce University Faculty of Health Sciences Division of Nursing Department of Pediatric Nursing, Istanbul, Turkey

Background

Hypoglycemia is the most frequently met acute complication of type 1 diabetes. It threatens the health and life of the child/adolescent. Cases of hypoglycemia that are experienced at night might not be noticed if not monitored by the child/adolescent or the parent; they may result in coma or death. This is why hypoglycemia must be treated urgently. The role of parents is highly important in preventing and treating cases of nocturnal hypoglycemia.

Aim

It was aimed to evaluate the knowledge of the parents of children and adolescents aged 6-18 with type 1 diabetes on preventing nocturnal hypoglycemia.

Methods: This descriptive study was conducted with the parents of 150 children and adolescents with type 1 diabetes at the Pediatric Endocrinology Polyclinics of four hospitals in Istanbul, Turkey. The data were collected using a Parent Descriptive Information Form and Parent Hypoglycemia Knowledge Form.

Results

The mean age of the parents who participated in the study was 39.23±7.205, while the mean diabetes age of their children was 5.17±3.75'tir. 78.7% (n=118) of the participants stated that they received education about nocturnal hypoglycemia and 56% (n=84) stated they would not want to receive it again. The participants received their information about nocturnal hypoglycemia from nurses by 65.3% (n=98), doctors by 43.3% (n=65), books and magazines by 13.3% (n=20) and the internet by 14% (n=21). The participants responded to the question on the first thing that is done in the case of nocturnal hypoglycemia as immediately measuring blood sugar by 43.3% (n=65), giving rapid-acting carbohydrate based on weight by 45.3% (n=68), visiting the hospital right away by 9.3% (n=14) and immediately injected glucagon by 2% (n=3). 58% of the parents (n=87) stated that their children experienced problems related to disruption of their sleep at the top of the issues cause by nocturnal hypoglycemia experienced by the children. The ratio of the correct answers by the parents provided to the 30-question form, which was used to evaluate their knowledge levels on nocturnal hypoglycemia was 60%. There was a significant difference in the parent hypoglycemia knowledge form total scores in terms of having received education on nocturnal hypoglycemia (U=1101, p=0.000).

Conclusion

It was seen that the parents who received education on nocturnal hypoglycemia managed hypoglycemia better. As a result of the study, it was found that the levels of knowledge of the parents of children/adolescents with type 1 diabetes on preventing and treatment nocturnal hypoglycemia were insufficient. In the light of these results, diabetes education should be frequently repeated, information should be updated and definitely be evaluated. It is believed that it will contribute to the literature to question the reasons why parents do not want to receive education in another study.

5

NURSES IMPACT ON DIABETES: A REVIEW OF NURSE-DELIVERED INTERVENTIONS

D. Rice[1], MBA, BSN, RN, CDE, FAADE; S. Coumel[2], MSPH; C. Monteil[3], PhD, ESCP; E. Murray[4], MPH; S. Zelman Lewis[4], PhD; L. Egbuonu-Davis[5], MD, MPH, MBA;

[1] Sanofi, US, Innovative Solutions, Bridgewater, NJ, USA
[2] Sanofi, Patient Centered Solutions Unit, Chief Medical Office, Paris, France
[3] Sanofi, Medical Device Unit, Paris, France
[4] Doctor Evidence, Santa Monica, CA, USA
[5] Sanofi US, Patient Centered Solutions Unit, Chief Medical Office, Bridgewater, NJ, USA

Background

Globally, 425 million adults struggle with diabetes, many unable to obtain target HbA1C levels. Nurse-delivered general or specialized education and management programs have been shown to improve diabetic outcomes.

Aim

To analyse the evidence addressing general, specialized, and technology-assisted nursing interventions' impacts on clinical and patient-reported outcomes in diabetes, types 1 and 2.

Method

We searched MEDLINE, Embase, and CENTRAL for comparative studies where nurses served as primary intervention providers. Pairwise meta-analysis was performed on RCTs to assess the impact of nurse interventions over standard of care (SoC). Patient reported outcomes (PROs) were reviewed qualitatively. Analyses were performed on DOC Data v2.0 advanced web-based platform.

Results

Search returned 3649 studies, of which 144 were accepted. Fifty-nine studies addressed specialized diabetes programs (SP) and 53 addressed general diabetes education programs (GE). Forty-four studies covered interventions delivered by small teams of providers including a nurse and 102 by a nurse alone. Both programs improved glycaemic control and quality-of-life measures. Meta-analysis of SP compared to SoC on HbA1c levels showed the greatest improvement for interventions delivered both in group sessions and individually [Mean Difference: -1% 95% CI (-1.7, -0.30)]. When comparing GE to SoC, individual delivery proved most effective [-0.18% (-0.31, -0.05)], while group sessions showed favourable change in HbA1c but were not statistically significant. Addition of glycaemic monitoring improved HbA1c results for both SP [-0.66% (-0.94, -0.38)] and GE [-0.34% (-0.62, -0.06)]. For SP, the impact of small teams [-0.66% (-0.96, -0.37)] was greater than nurse-only delivery [-0.46% (-0.63, -0.29)]. While for GE, nurse-only delivery had greater impact [-0.23% (-0.37, -0.08)] compared to small teams [-0.08 (-0.28, 0.12)]. PROs revealed similar results for both programs with 90% of studies reporting favourable outcomes, more often statistically significant for SP.

Conclusion

Although both forms of nurse education improved outcomes, this research demonstrated overall improvement in clinical and patient outcomes when nurses employed formal specialized programming. Programs including glycaemic monitoring and delivered either individually or in combination with group therapy can further improve outcomes.

6

WHAT IS LIKE LIVING WITH DIABETES IN PORTUGAL? DAWN 2

Nascimento do Ó D, Silva S Educ Sci, Serrabulho L, Ribeiro R T Biol PhD Covinhas A Psyc, Afonso MJ Nut, Boavida J MD, Raposo JF MD, PhD

APDP – Diabetes Portugal, Lisbon, Portugal

Background and aims

The type of relationship and communication that people with diabetes (PWD) establish with family members (FMs) and health care professionals (HCP) is fundamental for therapeutic success. The aim of this study was to assess and explore potential drivers of active and successful management of diabetes among PWD and FMs.

Material and methods

In Portugal, the DAWN2-Attitudes, Wishes and Needs, included 89 with Type 1 diabetes (T1D) and 328 with Type 2 diabetes (T2D), those with Type 2 diabetes were stratified by treatment (170 non-insulin medication and 158 insulin treated) and 123 family members. Surveys assessed health-related quality of life, self-management, attitudes/beliefs, social support and priorities for improving diabetes care.

Results

Many PWD are reluctant to ask others for support or to even let people know how they can best support them in managing their diabetes (T2-72%;T1D-52%).

Related with the relationship with HCT, the PWD refer they were helped, most of the time, to set specific goals to improve diabetes management (T1D-62%;T2D-38%) and to make plans to achieve their diabetes care goals (T1D-64%;T2D-38%). They consider the HCT conveyed confidence in their ability to make changes (T1D-70%;T2D-49%).

T1D are more likely than T2D to have someone other than a HCP involved in helping their diabetes management (T1D-73%;T2D-55%). The vast majority say they get about the right level of involvement from the person most involved in their care (T2-72%;T1D-52%).

At least one in ten FMs (14%-31%) would like to be more involved in the diabetes care of the person they live with and would like to be more involved in helping him/her to deal with feelings about diabetes.

Discussion

This study underlines the mental/emotional and social burden felt by people with diabetes. These report to find support mainly with family and healthcare professionals, while being reluctant to ask other people for help, or engage in activities with peers. Finally, informal carers also report considerable burden from disease management, although some declare they would like to be more involved. Communication between PWD, FMs and HCP should be structured and promoted.

7

USING ELECTRONICALLY CAPTURED PATIENT-REPORTED OUTCOME MEASURES TO ASSESS DIABETES-RELATED DISTRESS AND PSYCHOLOGICAL WELL-BEING IN ADULTS WITH TYPE 1 DIABETES – THE DIAPROM TRIAL

Hernar I[123] RN MSc, Graue M[1] RN PhD, Tell GS[2] PhD, Nilsen RM[1] PhD, Strandberg RB[1] RN PhD, Haugstvedt A[1] RN PhD.

[1] Department of Health and Caring Sciences, Western Norway University of Applied Sciences, Bergen, Norway
[2] Department of Global Public Health and Primary Care, University of Bergen, Norway
[3] Department of Medicine, Haukeland University Hospital, Bergen, Norway

Background

Routine assessment of diabetes-related distress and psychological well-being is recommended, as emotional problems may impair individual ability for diabetes self-management. Using Patient-Reported Outcome Measures (PROMs) such as the Problem Areas in Diabetes Scale (PAID, 20 items) and the WHO-5 well-being index (WHO-5, 5 items), in assessing diabetes-related distress and well-being among adults with type 1 diabetes (T1D), are considered beneficial and feasible in clinical practice. In the DiaPROM trial, we aim to develop, feasibility and pilot test an intervention using PAID and WHO-5 to identify emotional problems in adults with T1D and offer extra follow-up for individuals reporting problems of concern.

Aim

In this feasibility study, we aimed to 1investigate the participants willingness to complete electronic PROMs annually, 2estimate the proportion of participants with PAID and WHO-5 scores of concern, and 3examine the association between diabetes-related distress and psychological well-being.

Methods

Sixty-nine adults (≥40 years) with T1D completed PAID and WHO-5 on a touchscreen computer in an outpatient clinic. A PAID score >40 suggest serious diabetes-related distress. To identify both moderate and serious distress, we chose a PAID score ≥30 or minimum one item scored ≥3 to qualify for diabetes specialist nurse follow-up. WHO-5 scores <50 indicate suboptimal well-being, whereas scores <28 suggest likely depression.

Results

Fifty-four (83.1%) participants were to a large or very large degree willing to complete electronic PROMs annually. None of the participants reported to be unwilling. PAID scores of concern were observed in 34 (49.3%) participants, of which 11 (16.7%) had a score >40. Suboptimal well-being was reported by 18 (27.3%) participants and three (4.6%) had likely depression. We found a moderate correlation (rho = 0.55, P <.001) between increased diabetes-related distress and reduced psychological well-being.

[contd]

Conclusion

Instruments for identifying emotional problems were accepted by the participants. Half of them reported moderate to serious degree of diabetes-related distress and one-third reported suboptimal well-being. Using PROMs may help clinicians to become aware of diabetes-related challenges and thus to facilitate targeted follow-up.

8

DO WE ALWAYS KNOW WHAT KIND OF DIABETES MELLITUS OUR PATIENT HAVE?

Kolarić V, Pape Medvidović E, Mlakar M, Gaćina S, Freund S

University Clinic for Diabetes, Endocrinology and Metabolic Diseases Vuk Vrhovac, Clinical hospital Merkur Zagreb, Croatia

Background

Type 1 (T1DM) and type 2 diabetes mellitus (T2DM) are the most common forms of diabetes, however other specific forms of diabetes exist, such as latent autoimmune diabetes in adults (LADA) and maturity-onset diabetes in the young (MODY). Their diagnosis is challenging due to overlap in clinical features with common forms of diabetes. In most cases those patients are misdiagnosed as T2DM.

Aim

To estimate the prevalence of LADA and MODY among the C-peptide positive adult patients who were considered having T2DM and to asses the difference in glucometabolic and anthropometric parameters among them.

Method

We recruited 507 C-peptide positive patients who were diagnosed with T2DM before the age < 45 years through the Croatian Diabetes Registry (among 260 092 patients diagnosed as T2DM in year 2015). General anthropometric measurements were undertaken and glucometabolic evaluation were assessed. C-peptide was analysed using chemiluminiscence immunoassay. Method of indirect immunofluorescence on frozen human pancreatic sections was used for detection of ICA. GAD antibodies were measured using ELISA. HNF1A detection was performed using Sanger sequencing. SPSS was used for statistical analysis, with P value < 0.05.

Result

Among 507 C-peptide positive patients, 466 were reconfirmed having T2DM (92 %), 13 (3 %) were diagnosed as MODY (HNF1A mutation positive) and 28 (5 %) were diagnosed as LADA. Patients with T1DM (24.3 kg) and MODY (24.1 kg) had lower median body mass index compared to T2DM patients (29.6 kg). We observed no significant difference in HbA1c values between the groups. The group of patients diagnosed as MODY had statistically significant lower C-peptide values in comparison with patients with T2DM (P=0.006).

Conclusion

We should be adopting a more systematic approach for diagnosis of diabetes in order to properly classify and treat our patient.

9

CONTINUOUS SUBCUTANEOUS INSULIN INFUSION EDUCATION SESSIONS

Dingle M, Afonso MJ Nut, Castro S MD, Coelho R MD, Matos D, Pereira A Nut, Serrabulho L, Raposo JF MD PhD

APDP – Diabetes Portugal, Lisbon, Portugal

Background

Continuous Subcutaneous Insulin Infusion (CSII) has been shown to be the safest, flexible and accurate method of insulin administration for pediatric ages, allowing reduction of needle phobia and severe hypoglycemia, improving quality of life. A structured and personalized education of children, young people and their families contributes to optimized CSII treatment and prevent diabetes complications. APDP is an outpatient clinic with CSII since 2008, Pre-Start program is applied since 2015 to empower youth and their families and optimized treatment.

Aim

The aim of this work is to evaluate the impact of a structured CSII training program on patient satisfaction and metabolic control.

Methods

This educational program, consist of 3 weeks of intensive glycemic control, 3 group sessions (total duration 12 h), addressed to patients and caregivers. These sessions are facilitated by a nurse and a nutritionist and include theoretical and practical concepts to apply in this treatment and guidance about nutrition therapy including advanced carbohydrate counting. Patients' evaluation and satisfaction was assessed by a questionnaire. A1C was evaluated at the beginning of the program, before starting insulin pump therapy, at 6 and 12 months of CSII treatment. 60 participants (18 children until 18 years of age and 42 caregivers) were included in 7 sessions.

Results

Participants evaluated this program as very important (98%) and were very satisfied (95%). During this 3 week in this program A1C decreased 0.2% and after 1 year the total decrease was 0.6%. 25% of the initial group had A1c < 7.5%, while 56% and 50% achieved this goal at 6 and 12 months

Conclusions

This program showed excellent results on patient satisfaction and they have highlighted the importance of diabetes skills acquirement. Empowering people for their CSII treatment with this training program can optimize a better development of diabetes skills and contribute to metabolic control improvement and maintenance.

10

PORTRAIT OF THE FINNISH DIABETES NURSES ASSOCIATION

Päivi Lehtimäki

Pediatric Diabetes Nurse, The Central Hospital of Vaasa, FINLAND
The Chairman of The Association of Finnish Diabetes Nurses

The Association of Finnish Diabetes Nurses is a registered association for nursing personnel working in diabetes, and other interested parties. The Association was founded in 1985 and there are 1300 members today.

Our great honour is to arrange an annual 2 days training event at national level for the diabetes nurses in our country.

Our Association is a member association of the Finnish Diabetes Association.

We co-operate closely with it and its local associations, as well as health care organisations, various educational institutions, chemists and patient associations.

We publish a membership bulletin 3-4 times a year and we have our own column in the publication "Diabetes ja Lääkäri"(Diabetes and Doctor) and we maintain our own websites www.diabeteshoitajat.fi.

Our slogan is: "Growing together", which means that together can we achieve the best results in the treatment of diabetes.

We grant scholarships for our members for doing thesis in nursing and for congress trips in the field of diabetes. In our general meeting of 2007, the Association established a fund for scholarships, the Marja Puomio Fund, named by the first diabetes nurse in Finland.

We have been heard of, for example, in the context of planning the education of Diabetes Nurses in our country, as well as in planning the training for nurses acquiring permission to prescribe medication.

11

DIABETES MELLITUS OF POST-SOVIET IMMIGRANTS: SUBJECTIVE ILLNESS THEORIES AND RECOMMENDATIONS FOR COUNSELLING

Simolka, Sigrun[1]; Bartoszek, Gabriele[2]; Schnepp, Wilfried[3]

[1] Diabetes Special Nurse, Master in Diabetes Care/ MSc.
[2] Professor, University of Applied Sciences for Social Work, Education and Nursing, Dresden, Germany
[3] Tenured Professor, University Witten/ Herdecke, Department of Nursing, Family Health Nursing, Witten, Germany

Background

People from the former Soviet Republics are a large group of immigrants in Germany. Coping strategies are affected by subjective health theories.

Aim

What subjective concept of illness by diabetes mellitus reported post-Soviet immigrants? What recommendations for diabetes educations are implied thereby?

Method

The data refer to the statements of 26 post-Soviet immigrants (affected by diabetes mellitus) and 3 experts (Russian-speaking immigrant diabetes educators). Problem focused interviews were performed according to Witzel and analysed using qualitative content analysis as described by Mayring.

Results

Causal-Attribution: living conditions at the time of diagnosis (stress, old age, working environment, other diseases) were important and considered to be the cause of diabetes. Experts called it a defensiveness against an external allocation of blame for the disease by medical professionals and lay people in the country of origin.

Change of behaviour: attempted restrictions of food and stronger movement. Experts ascribed the change in the behaviour as fear of the need for insulin. This is similar also for German patients.

Decision-making procedure: Own decisions were preferred on issues of healthy nutrition and alternative therapies (narrative folk medicine), perhaps explaining the high degree of perceived self-efficacy.

Autonomously changes medication were deliberately not communicated to doctors as this was seen as a violation of doctors´ competences. These competences weren´t questioned.

Counselling: Interview participants wanted advanced knowledge in the field of nutrition and motivation in dealing with restrictions. They generated knowledge by obtaining expert advice and using internet, secondary literature, Russian-speaking TV as well as family experiences. Contents were really questioned. Time for repeated counselling is necessary. Felling cared for is important especially for people for a rural environment.

Conclusion

Freedom from disease symptoms and usual nutrition were the goal of the participants for involvement in diabetes mellitus. As the task of counselling, there named motivation for the behavioural change, knowledge obtainment and the possibility to exchange experiences with others.

Limitations: Access to interview participants proved to be difficult. Probably, only people already seeking a solution to their illness their prepared to make the statements.

12

USE OF FREESTYLE LIBRE FLASH IN ROUTINE PRACTICE

U. Vesth RN, N. Serifovski RN

Department of Endocrinology Copenhagen Universitet Hospital Hvidovre Denmark

Background

Freestyle Libre Flash are in DK a new technology to SMBG to people with DM. Results from others studies concluded a better metabolic control. We implemented use of Freestyle Libre Flash in the routine care for type 1. We also looked at their weight.

Aim

To describe the clinical outcome after 3 and 6 months use of Freestyle Libre Flash

Method

All patients had a diabetes nurse consultation, where they were trained in use of Freestyle Libre Flash. All patients have a number of individual consultations to regulate their insulin. Patients have individual follow-up sessions with nurse, dietician or doctors.

In this retrospective study we included patients with type 1 diabetes HbA1c over 60 mmol/mol.|

39 men and 18 women aged 44 years (21-69) vs 41 years (17-66), diabetes duration 19 years (1-53), average weight for men 84 kg (56-108) and women 74 kg (48-136). Baseline HbA1c for men were 78 mmol/mol (60-102) and women 83 mmol/mol (60-106). Primary endpoint was change in HbA1c and secondary endpoint was change in weight.

Results

There was a difference in change in HbA1c for men and women. There was a decreased in HbA1c after 3 months and 6 months for both man and women. After 6 month HbA1c decreased to 65 mmol (42-94) for men in contrast to women 62 mmol/mol (45-80). On average weight for men and women were increased by 2 kg in both men and women.

Conclusion

Use of Freestyle Libre Flash improved HbA1c significantly after 3 months and 6 months in routine clinical practice. But the weight increase also.

The results indicates the effect of Freestyle Libre Flash, but longer follow-up are necessary.

13

SELF-CARE OF PERSONS WITH DIABETES MELLITUS

Kolarić V, Gaćina S, Poljičanin T.

University Clinic for Diabetes, Endocrinology and Metabolic Diseases Vuk Vrhovac, Clinical hospital Merkur, Croatian Institute of Public Health Zagreb, Croatia

Background

Recommendations for proper management of diabetes mellitus include education and support for individuals. The American Diabetes Association (ADA) recommends the length of time needed to provide support and self-care education to individuals suffering from diabetes. ADA recommends support at diagnosis and once a year to assess education, nutrition and emotional needs. The lifetime course of diabetes poses a challenge to an individual from both aspects of medical treatment and self-management and care. During the course of diabetes individuals are provided with self-care recommendations by diabetic nurses; however, data regarding the level of adherence in Croatia is still lacking.

Aim

The aim of this study was to assess self-care behaviours in diabetic patients in Croatia.

Method

Patients suffering from diabetes voluntarily completed a questionnaire on the FB page of young diabetics in Croatia. The study was conducted from June 2018 on a sample of 97 patients. The research was conducted through the SDSCA questionnaire. Descriptive statistical data processing was performed. SPSS was used for statistical analysis.

Result

Most participants were type 1 diabetics (91.8%) and women (83.5%), between 15 and 40 years (78.8%), had diabetes for less than 20 years (73.7%) and were treated with insulin (93.0%). Participants reported compliance with recommended self-care behaviours in the previous week (mean±SD, days): general diet 4.29±1.89, specific diet 3.73±2.16, exercise 3.14±2.42, and blood-glucose testing 6.31±1.68, foot-care 2.76±2.65. Smoking prevalence was 28.87%.

Conclusion

Self-care behaviors appears suboptimal in people with diabetes in Croatia. Further studies are needed to determine priorities in different subpopulations of persons with diabetes. There is also a need to improve diabetes self-management support through education provided by nurses and/or other medical professionals.

14

EFFECTIVENESS OF EDUCATION PROGRAM FOR CHILDREN AND YOUNG ADULTS WITH DIABETES AT THE DIVISION OF PEDIATRICS, UNIVERSITY MEDICAL CENTRE LJUBLJANA

Ana Gianini RN, doc. dr. Nataša Bratina;
University Medical Centre Ljubljana, University Children's Hospital, Slovenia

Theoretical background
As type 1 diabetes is an autoimmune disease that usually develops in childhood and early adulthood, it should be managed not only with insulin therapy and a protective diet but also through self-control and education. However, the effectiveness of educational programmes in managing the metabolism of children and adolescents with type 1 diabetes has yet to be determined.

Method
The study included 140 children and adolescents with type 1 diabetes from the program "Annual Extended Examinations". The program included anthropological measurements, measurements of metabolic control and a structured survey titled "Knowledge on Management of Type 1 Diabetes". The children and adolescents received additional training upon the first annual extended examination. Answers to test questions were statistically analysed with Pearson's correlation coefficient, dependent samples t-test, Kullback 2Î test and non-parametric chi-square test.

Results
The findings of the study have shown that after two consecutive inclusions in the program of extended annual examinations, there is a statistically significant link between the height of HbA1c ($r=-0,355$, $p<0,001$). And the result from knowledge test. There are statistically significant differences in knowledge on type 1 diabetes in the group of children that measure their blood sugar more often ($p<0,050$). The adolescents with poor knowledge on type 1 diabetes have the same number of problems in the management of diabetes as the adolescents with better knowledge ($2Î = 7,771$, $p = 0,051$). The structure of adolescents differs regarding knowledge, the girls demonstrated better knowledge after two consecutive educations in comparison to the boys ($p<0,001$), the adolescents with lower BMI also have better knowledge on diabetes. ($-0,198$, $p=0,019$).

Conclusion
The study on the importance of education for children and adolescents with diabetes showed that regular education on type 1 diabetes for children and adolescents is crucial for good metabolic control. The results of our study provide additional research options in the future with focus on various target populations.

Keywords: type 1 diabetes, health education, education program, test of knowledge on diabetes, metabolic control.

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GESTATIONAL DIABETES FUTURE DIABETES PREVENTION FEASIBILITY STUDY PROTOCOL

Parsons J. (Ms); Sparrow K. (Ms); Ismail K. (Prof); Hunt K. (Dr); Rogers H. (Ms); Forde R. (Dr); Forbes A. (Prof)
King's College London, London, UK

Background
Women diagnosed with gestational diabetes are at high risk of developing type 2 diabetes and future episodes of gestational diabetes. While lifestyle support could attenuate this risk, there is a lack of preventative interventions for this population.

Aim
The Gestational Diabetes future DiabEteS prevention feasibility Study (GODDESS) was designed to determine whether a theoretically-based, specifically tailored lifestyle intervention aiming to prevent future diabetes in women with gestational diabetes is acceptable and feasible.

Method
A feasibility parallel two-armed randomised controlled trial will be conducted to assess feasibility and acceptability of the intervention and trial procedures over a 12 month period. Sixty women will be recruited from two hospital sites in London, United Kingdom, shortly after diagnosis of gestational diabetes and randomised to receive either the lifestyle intervention or usual care. Data will be collected at baseline, six and 12 months. The intervention comprises five one-to-one sessions that utilise motivational interviewing techniques to support individualised goal-setting; a pedometer; access to a moderated peer support 'What'sApp' group; and a supporting website. The primary outcomes are feasibility of the trial and acceptability of the intervention, measured through an embedded process evaluation. The process evaluation will assess specifically: recruitment; attrition; reasons for non-acceptance; fidelity of implementation; amount of staff time required; staff feedback on feasibility; participants' satisfaction with the intervention, acceptability of research procedures, data collection and overall experience of the trial. Interviews will be undertaken with a subsection of participants to collect qualitative data on acceptability. Secondary outcomes will be measured for signs of preliminary efficacy and include weight loss, glucose tolerance, HbA1c, diet, physical activity, eating behaviour, body image, motivation for dietary change, sleep, infant feeding, diabetes risk perception, quality of life and depression.

Results
The results of this trial will inform a future large-scale trial.

Conclusion
GODDESS aims to address a gap in helping to prevent type 2 diabetes in a population at high diabetes risk. It is hoped that the continuity of support provided from diagnosis through the postpartum period will enable women to capitalise on the behaviour changes made during pregnancy.

Conference Reception

19:30 - 21:30 Friday 28 September

Venue:
Duke Bar & Lounge, Ellington Hotel

FEND Award		
1999	T. Birdsall	UK
2000	D. Weisman	Israel
	P. Nikkanen	Finland
2001	A. Joergensen	Denmark
2002	A. Munzinger B. Osterbrink C. Nonn	Germany
2003	M. Vidal	Spain
2004	P. Banck-Petersen	Denmark
2005	E. Turner	UK
2006	K. Alexandre	Switzerland
2007	S. Amsberg	Sweden
2008	M. Graue	Norway
2009	I. Lopes	Portugal
2010	A. Haugstvedt	Norway
2011	A. Faber	Netherlands
2012	S. Dereli Yilmaz	Turkey
2013	F. Bassin	Switzerland
2014	I. Tiberg	Sweden
2015	R. Forde	Ireland
2016	D. Ausili	Italy
2017	L. Munch	Denmark

First Announcement

24th FEND Annual Conference

13-14 September 2019
Barcelona Spain

On behalf of the Foundation of European Nurses in Diabetes we cordially invite you to attend the 24th Annual Conference of FEND

Kristin de Backer
FEND Chairman

Anne-Marie Felton
FEND President

Conference Programme Enquiries
Kristin de Backer
kdbacker@fend.org

Conference Exhibition Enquiries
Ana Cristina Paiva
exhib2019@fend.org

FEND Membership Enquiries
fend.membership@fend.org

Conference Registration Enquiries
registration2019@fend.org

FEND ENDCUP 2019 Enquiries
Prof Angus Forbes
angus.forbes@kcl.ac.uk

Conference Abstract Enquiries
Magdalena Annersten-Gershater
magdalena.annersten@mail.com

Enquiries: info@fend.org
www.fend.org
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Date for your diary

55th EASD Annual Meeting
16-20 September 2019
Barcelona Spain

www.easd.org

LOCATION PLAN