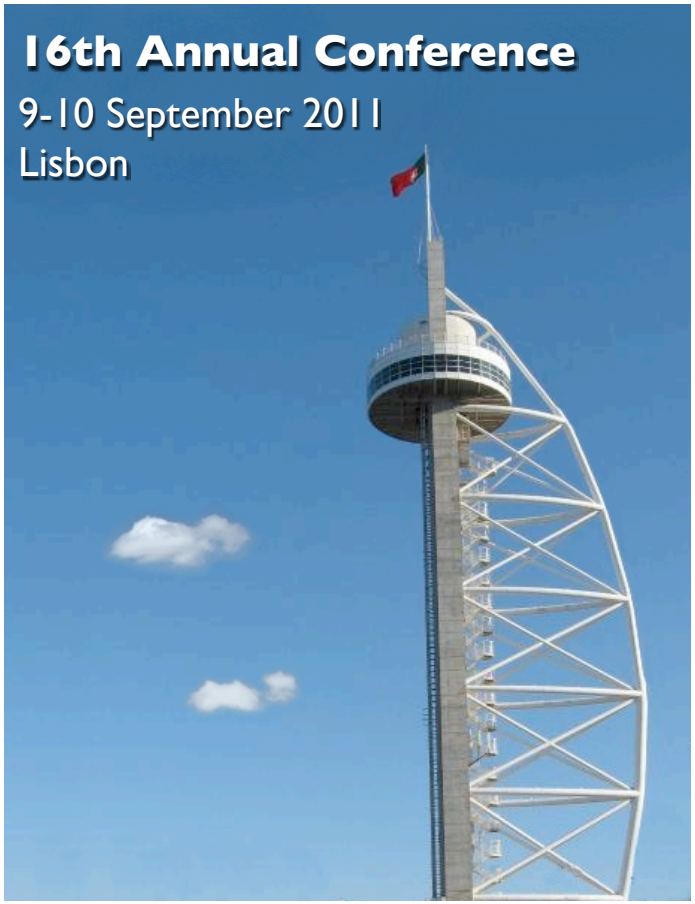
FEND

Foundation of European Nurses in Diabetes



unite for diabetes

Programme design and layout M J Felton

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

Abbott Diabetes Care
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ADDITIONAL CONFERENCE SUPPORT

We thank the pharmaceutical industries for their participation in the exhibition during the conference and European Diabetes Nursing (the official journal of FEND) and Practical Diabetes International for their reporting of this conference.

- **Post-conference online webcasts** *courtesy of Bayer Diabetes Care*
- **DESG Award** *courtesy of Diabetes Education Study Group*
- **Delegate name badges** *courtesy of Menarini Belgium*
- **Delegate bags** *courtesy of Novo Nordisk*

CONTENTS

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 sepecialist 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 to the FEND 16th Annual Conference and the city of Lisbon.

The conference this year is multi-faceted refelcting the complexities and challenges from pre-conception to old age.

The significant political recognition of the impact of the diabetes pandemic as manifest in the

- St Vincent Declaration of 1989
- The EU Parliamentary Declaration (April 2006)
- Austrian Presidency Conclusions (June 2006)
- The landmark UN Resolution 61/225 achieved in December 2006
- ECOSOC statement (June 2009)
- UN Resolution on NCDs 64/265 (May 2010)

must ensure that these political statements are realised in national health policies and all sectors of society.

FEND has played and will continue to play an active role in advocacy, policy development and implementation. The appointment of the FEND Professor in diabetes nursing will also advance the aims and objectives of FEND.

Co-operation with key pan-European organisations is imperative, hence the recent formation of ECD (European Coalition on Diabetes) comprising EURADIA, FEND, IDF Europe and PCDE.

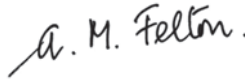
We thank our distinguished international speakers for their commitment and generosity of time. We thank Prof Ulf Smith, President EASD and Dr Luís Gardete-Correia, local organising Chairman of EASD, for their courtesy and support in permitting this conference to be included in the programme of meetings on the occasion of 47th Annual Meeting of EASD.

We acknowledge with deep appreciation the support of our sponsors for all of FEND's activities and special thanks also to our FEND volunteers from the Portuguese diabetes nursing association.

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.

Deirdre Kyne-Grzebalski
FEND Chairman



Anne-Marie Felton
FEND President

Friday 9 September 2011

0730	*Registration and Coffee*			
0845	Welcome and Opening Remarks	*FEND Chairman* *EASD Local Chair* *FEND President*	Deirdre Kyne-Grzebalski Dr Luis Gardete-Correia Anne-Marie Felton	UK Portugal UK
		Session Chairs	Prof Regina Wredling Ana Cristina Paiva	Sweden Portugal
0900	**An Overview of Diabetes in Portugal & Diabetes Nursing in Portugal**		Dr. José Boavida Lurdes Serrabulho	Portugal Portugal
1000	**Oral Presentations 1-4:** **1.** (see page 16) **2.** (see page 17) **3.** (see page 18) **4.** (see page 19)		 Anne Haugstvedt Beata Stepanow Deirdre Moyna Hanneke Hortensius	 Norway Poland Ireland Netherlands
1100	*Refreshments & Exhibition*			
		Session Chairs	Chantal Montreuill Sijda Groen	Switzerland Netherlands
1130	**Diabetes Care in the ICU: the University Hospital of Leuven model**		Koen Vanhonsebrouck	Belgium
1200	**Diabetes and Sports / Exercise**		Peter Adolfsson	Sweden
1245	*Lunch & Exhibition*			
		Session Chairs	Jaqueline Herbst Unn-Britt Johansson	Switzerland Sweden
1400	**The Training of the DSN: the FEND ENDCUP model**		Prof Angus Forbes	UK
1430	**Management of Severe Obesity: the Essential Role of a Multi-Disciplinary Team Approach**		Dr Jean O'Connell	Ireland
1500	*Refreshments & Exhibition*			
		Session Chairs	Marianne Lundberg Lurdes Serrabulho	Sweden Portugal
1530	**Can Diabetes Medication be Reduced in the Elderly with Tight Glycaemic Control?**		Assoc Prof Carl Johan Ostgren	Sweden
1600	**Using HbA1c as a Diagnostic Tool for Diabetes**		Prof Sally Marshall	UK
1615	**UN Summit on NCDs - the Final Push**		Anne-Marie Felton	UK
1630	**Metabolic Syndrome Management: a Multifaceted Therapeutic Approach**		Prof Lea Smircic Duvnjak	Croatia
1930 2000	**Pre Dinner Cocktails** **Conference Dinner**		Beato Convent Rua do Beato 44 Lisbon 1900-632	

Saturday 10 September 2011

		Session Chairs	Nadine Van Campenhout Rosanna Cisic	Belgium Croatia
0900	**Pre-Pregnancy Care**		Rita Forde	Ireland
0930	**Value of a Specialised Dietitian for CSII and Multiple Injection therapy**		Henja Westerbeek	Netherlands
1000	**Masterclasses:** (parallel) **1. Multidisciplinary Team's Experience in Therapeutic Education**		 Ana Lúcia Covinhas Dr João Nabais Lurdes Serrabulho Margarida Barradas	 Portugal
	2. Hypoglycaemia Awareness Toolkit		Dr Claus Juhl	Denmark
	Guided Poster Tour 1 (parallel)		Chantal Montreuil Selda Gedik	Switzerland Turkey
1115	*Refreshments & Exhibition*			
1145	**Masterclasses (Repeated):** **1. (as above)**		 Alexandra Costa Catarina Andrade Dr João Raposo Lurdes Serrabulho	 Portugal
	2. (as above)		Dr Claus Juhl	Denmark
	Guided Poster Tour 2 (parallel)		Chantal Montreuil Selda Gedik	Switzerland Australia
1300	*Lunch & Exhibition*			
(1330)	**Inaugural FEND Research Network Group meeting** (in main auditorium during lunch)		Prof Angus Forbes	UK
		Session Chairs	Rita Forde Marianne Lundberg	Ireland Sweden
1415	**Islet Transplantation: a Clinically Proven Therapy for Severe Hypoglycaemia**		Prof James Shaw	UK
1445	**Oral Presentations 5-8:** **5.** (see page 20) **6.** (see page 21) **7.** (see page 22) **8.** (see page 23)		 Lena Jutterström Selda Celik Ya. Enkhjargal Anna Clarke	 Sweden Turkey Mongolia Ireland
1545	*Refreshments & Exhibition*			
1615	**The Multiple Challenges of Managing Diabetes in an Ageing European Population**		Dr Hans-Ulrich Iselin	Switzerland
1645	**Awards Ceremony: FEND and DESG**		Deirdre Kyne-Grzebalski Anne-Marie Felton	UK UK
1700	Closing remarks		Deirdre Kyne-Grzebalski	UK

DIABETES IN PORTUGAL

Dr. José Manuel Boavida
Coordinator of the Portuguese Plan for the Prevention, Control and Care of Diabetes, President of DESG (Diabetes Education Study Group), Lisbon Portugal

The Portuguese National Program for the Prevention, Control and Care of Diabetes was created in 2008 in an attempt to answer to the explosive growth of diabetes in Portugal.

Ascertaining its prevalence was vital as a starting point to establish and evaluate the success of health interventions. The first diabetes prevalence national study in Portugal, the PREVADIAB study, was conducted in 2009. Diabetes was found to have a high prevalence in Portugal, 12.3%. If we consider 'pre-diabetes', about one-third (34.9%) of all the population aged between 20–79 years is affected. A high percentage of people with undiagnosed diabetes (43.6%) were detected. After this study we organized the National Centre for Diabetes Observation to collect annually all the information about diabetes indicators' evaluation.

The National Program for the Prevention, Control and Care of Diabetes (PNPCD) considers three strategic areas: Prevention, Control and Follow-up, and Training of HCP and people with Diabetes. Their major objectives are: to reduce diabetes prevalence; to reduce major diabetes complications; to reduce morbidity and mortality through a Diabetes management project, integrating the intervention in the community, the primary and the secondary level.

Concerning the intervention strategies for population the PNPCD considers: community intervention programs; information about risk factors and improvement of lifestyles, and articulation with the civil society including associations of people with diabetes. The interventions with HCPs are related with professional training, defining a curriculum in diabetes, best practices' manuals, IT systems to follow and evaluate clinical quality, systematical surveys and treatment of complications. The Diabetes consultations are organized as multidisciplinary teams (doctor, nurse as the nucleus and dietician, podologist when possible) and with their performance improved through training in Therapeutic Patient Education, as a fundamental tool recognized by WHO in chronic diseases.

DIABETES CARE IN THE ICU – THE UNIVERSITY HOSPITAL OF LEUVEN MODEL

Koen Vanhonsebrouck
Head-nurse PICU at the University Hospitals in Leuven, Belgium

Hyperglycemia is associated with increased mortality of critically ill patients. The question was whether this hyperglycemia is an adaptation of the body to the severity of illness or whether it is a factor that is contributing to the adverse outcome and so has to be treated.

We tried to answer this question at the University Hospitals Leuven in by a first Randomized Controlled Trial (RCT) published in 2001. We compared 2 patient groups: one group was treated with insulin to keep the glycaemia in the 'normal for age' range, being 80 to 110 mg/dl (4,4 to 6,1 mmol/l); the control group was not treated with insulin unless blood glucose levels exceeded the renal threshold of 215 mg/dl (12 mmol/l). The result was a decrease of ICU mortality and in-hospital mortality. Intensive insulin therapy also reduced the morbidity with less organ failure and fewer infections and a reduced duration of intensive care dependency.

This first RCT was performed on mainly surgical ICU patients, but outcome effects were confirmed in a second study in medical ICU patients (2006) and in a third study of pediatric ICU patients (2009).

The nursing staff plays a crucial role in performing intensive insulin therapy in a safe and effective manner. In Leuven, the sampling, interpretation and adjusting of the insulin infusion is done by the nurses autonomously under medical supervision. These interventions are based on a guideline but also require a high level of anticipative decision-making by nurses. The principles of managing intensive insulin therapy, as performed in Leuven, will be shared with the audience during the lecture.

DIABETES AND SPORTS/EXERCISE

Dr Peter Adolfsson MD
The Queen Silvia Children's Hospital, Gothenburg, Sweden

Exercise is associated with many health benefits but also with various difficulties. Hypo- and hyperglycemia are common problems. Those having diabetes are less active than healthy peers and females are less active than males. The reason for this remains unclear but the fear of hypoglycemia can be a contributing factor.

The glucose value depends not only on the intensity level but also on the duration, the individual's accustomed activity, insulin receptor sensitivity, etc. A proper diet before and after exercise is of great importance. Before and during exercise, repeated blood glucose monitoring is advised in order to learn how to regulate insulin and carbohydrate intake.

Sometimes technologies can facilitate the struggle to remain normoglycemia during and after exercise. Insulin pumps are used by an increasing number of individuals and continuous glucose monitoring can also be of great use. Examples and strategies will be discussed during the lecture.

Action is needed to increase the degree of physical activity among individuals with diabetes due to a number of health benefits. This includes information to each individual but also to the healthcare team. The sports movement contributes in a positive way, but is unfortunately associated to a selection on the socio-economic grounds. The lessons with physical education at school is therefore of great importance as school reaches every child. Within the society it is also important to implement possibilities where individuals can be physically active in ordinary life i.e. pavements to walk, run or bicycle along and/or areas for spontaneous activities.

THE TRAINING OF THE DSN – THE FEND ENDCUP MODEL

Prof Angus Forbes
Department of Primary and Intermediate Care
Florence Nightingale School of Nursing and Midwifery, King's College, London

The quality of diabetes care is determined by the skill and ability of the workforce to deliver effective support to people with diabetes. The training of health professionals in diabetes is extremely variable across Europe. The challenge to those involved in providing diabetes training is to develop and implement new models of education that can lead to measurable improvements in care delivery.

This talk highlights those challenges and presents different pedagogic models that aim directly to improve clinical performance. Examples of different educational innovations will be presented to illustrate how these models can be implemented. These examples will include education targeting specific clinical problems in diabetes (depression and eye screening) together with more general programmes targeting the training of diabetes specialist nurses.

MANAGEMENT OF SEVERE OBESITY – THE ESSENTIAL ROLE OF A MULTI-DISCIPLINARY TEAM APPROACH

Jean O'Connell PhD
Department of Endocrinology, St Vincent's University Hospital and St Columcille's Hospital, Dublin, Ireland

The worldwide prevalence of overweight and obesity is increasing at an alarming rate. The prevalence of extremely obese individuals (body mass index ≥50kg/m2) is increasing three times as fast as that of lower categories of obesity.

It is unknown why some people stop gaining weight after a moderate increase in body mass index and others go on to develop extreme obesity. Some people do appear to have a greater genetic predisposition to obesity, and this is nourished by a high-fat, low-activity lifestyle. Obesity does result from an imbalance between energy intake and expenditure, but management of the condition requires much more than just advising patients to "eat less and exercise more".

Obese individuals are highly stigmatized and face multiple forms of prejudice and discrimination because of their weight, including bias from health professionals. People with chronic diseases such as diabetes, hypertension or heart failure are offered long-term support and follow-up after diagnosis and initial therapy. When we consider appropriate management of obesity, we must aim for no less than what is standard in other chronic medical conditions.

The development of a weight loss program requires an integrative approach of many professionals including physicians, psychologists, dietitians, and exercise physiologists, who can as a team propose an optimal personalised strategy taking into account all aspects of obesity. This is even more important in the context of bariatric surgical intervention, the only effective therapy for extreme obesity.

CAN DIABETES MEDICATION BE REDUCED IN THE ELDERLY WITH TIGHT GLYCAEMIC CONTROL?

Assoc Prof Carl Johan Östgren MD PhD
Department of Medical and Health Sciences, Linköping University, Linköping, Sweden

The management of type 2 diabetes in general calls for intensive therapy, with tight glycaemic control aiming to prevent micro-and macro-vascular complications but there are no studies supporting that this approach is beneficial in the oldest population. Declining body-functions may increase the vulnerability to adverse drug reactions and drug-induced hypoglycaemia may cause cerebral damage, cardiac arrhythmias, and even death.

We explored glycaemic control among elderly patients (mean age 84 years) with diabetes in nursing homes[1]. A further aim was to investigate the feasibility and safety of withdrawal of diabetic medication among patients with tight glycaemic control.

HbA1c was measured in 98 patients with known diabetes in 17 nursing homes in Sweden. Thirty-two subjects with HbA1c <7.0% (52 mmol/mol) participated in the drug withdrawal study. We identified 31 episodes of hypoglycemia, most of them nocturnal (n = 17) before the drug withdrawal. Mean HbA1c was 6.2 % at baseline. Three months after the diabetes drug discontinuation, 24 patients (75%) remained in the intervention group and mean HbA1c was then only moderately increased to 6.8%.

We conclude that the withdrawal or reduction of diabetes medication in elderly patients with type 2 diabetes with tight glycaemic control was successful in the majority of the cases. Furthermore, elderly patients with diabetes in nursing homes, with low levels of HbA1c, often suffer from hypoglycaemia. The clinical implication from this study is that there is a need for systematic drug reviews for patients with diabetes at nursing homes, paying special attention to subjects with tight glycaemic control.

1. Sjöblom P et al. Diabetes Res Clin Pract. 2008;82:197-202

USING HBA1C AS A DIAGNOSTIC TOOL FOR DIABETES

Prof Sally Marshall
Professor of Diabetes, Institute of Cellular Medicine, Newcastle University, UK

Diagnosing diabetes mellitus in individuals without symptoms of hyperglycaemia is important, as the condition may go undetected for years, during which time significant tissue complications may develop. Diagnosis currently depends on the strong relationship of blood glucose to the risk of complications, particularly retinopathy. Blood glucose measurement, either fasting of 2 h after an oral glucose load, is cheap and easy.

However, fasting or post-load glucose measurements are inconvenient and unpleasant for the person, and values vary greatly from day-to-day. HbA1c shows a very similar relationship as glucose to the risk of diabetes complications, the risk rising dramatically when HbA1c ≥48 mmol/mol (6.5 %). HbA1c can be measured at any time of day, requires no preparation by the person and the assay is now standardised. Thus the World Health Organisation and many national diabetes organisations have now recommended that in asymptomatic individuals at increased risk of diabetes, diagnosis should be by HbA1c and not blood glucose. Two HbA1c measurements ≥48 mmol/mol (6.5 %) confirm the diagnosis. If the HbA1c is 40-48 mmol/mol (5.8 -6.4 %), the person does not have diabetes but is at very high risk of developing it. They should be offered life-style advice and the HbA1c re-measured in one year. HbA1c should not be used to diagnose diabetes in symptomatic individuals, those with probable Type 1 diabetes, during pregnancy and in individuals with any abnormalities of red blood cell turnover or haemoglobinopathy.

METABOLIC SYNDROME MANAGEMENT – A MULTIFACETED THERAPEUTIC APPROACH

Prof Lea Duvnjak MD PhD
Professor of Internal Medicine, School of Medicine, University of Zagreb, Croatia

The metabolic syndrome refers to the clustering of cardiovascular risk factors that include diabetes, obesity, dyslipidemia and hypertension. Insulin resistance and visceral obesity have been recognized as the most important pathogenic factors. Metabolic abnormalities result from the interaction between the effects of insulin resistance primarily in muscle and adipose tissue and the adverse impact of the hyperinsulinemia on tissues that remain normally insulin sensitive. The clinical heterogeneity of the syndrome can be explained by its significant role on glucose, fat and protein metabolism, cellular growth and differentiation and endothelial function. Whatever the uncertainties of definition and etiology, metabolic syndrome represents a useful and simple clinical concept which allows earlier detection of type2 diabetes and cardiovascular disease. The large number of underlying cardiovascular risk factors calls for a multifaceted therapeutic approach. If the risk factors are not sufficiently modified despite lifestyle interventions, which represent the fundamental strategy, the selective use of proven drug therapies is required. Insulin sensitizers metformin or pioglitazone should be added to the treatment regimen for the management of diabetes. Incretin based therapy might be preferred as their clinical benefits extend beyond that of lowering glucose level. The addition of a lipid-modifying agent is also necessary if dyslipidemia is not controlled by lifestyle changes. To correct the typical atherogenic dyslipidemia of the metabolic syndrome co-administration of a statin with a fibrate is often needed. Between antihypertensive agents, a particular emphasis should be placed on the RAAS blockade and central sympatholytic agents which exert additional beneficial metabolic effects.

PRE-PREGNANCY CARE

Rita Forde
Advanced Nurse Practitioner, Mater Misericordiae University Hospital, Dublin, Ireland

Planning for pregnancy is the best investment a woman with diabetes can give her baby. Poor glycaemic control at conception and during early pregnancy is associated with increased foetal loss and congenital abnormalities in the infants of women with diabetes. It is recognised that optimising glycaemic control in the peri-conception period reduces these risks to almost the same as those not complicated by diabetes. For women with complications associated with diabetes, a pregnancy can have an impact on the progression of these. Yet for many women living with diabetes, education about planning for a pregnancy is not always available or emphasised.

In 2003 a survey was conducted to explore the knowledge of and attitude towards pregnancy planning among women with type 1 diabetes within our service. Less than half of the respondents reported that they had received education specifically related to pregnancy planning. In contrast the majority surveyed reported receiving education in relation to other aspects of diabetes care.

A dedicated pre-pregnancy clinic for women with diabetes was subsequently established. This clinic is an effective means to assist women with diabetes to achieve glycaemic targets prior to pregnancy. Participation in the pre-pregnancy clinic has resulted in a reduction in HbA1c prior to pregnancy and attendance for diabetes obstetric care at an earlier gestation than non-attenders.

Optimal glycaemic control reduces fetal and maternal mortality and morbidity. All women with diabetes should have access to a dedicated pre-pregnancy clinic.

THE VALUE OF A SPECIALIZED DIETITIAN FOR CSII AND MULTIPLE INJECTION THERAPY

Henja Westerbeek
Bethesda Diabetes Center, Hoogeveen, The Netherlands

The use of insulin/carbohydrate ratio's, bolus wizard programmes on the insulin pump and continuous glucose monitoring systems (CGMS)

When diabetes control is insufficient and it is not possible to improve on the situation using pre- and postprandial blood glucose levels, wearing a glucose sensor can be considered. Often nutrition plays a larger role than expected.

Most clients do not properly take into account their carbohydrate intake and do not adjust their insulin accordingly. Knowledge about carbohydrates is mostly moderate, where none or too little carbohydrates are counted for dairy products, fruits, juices and snacks. Besides, more is consumed than accounted for when clients are inquired about their nutritional pattern. The postprandial levels are mostly higher than measured using 7-point glucose database. To draw the correct conclusions and give the right advice, both the knowledge of the diabetes nurse and diabetes dietitian is very useful. The nurse can especially judge the basal amount of insulin and can judge whether exceptional situations (e.g. physical exercise) have been accounted for. The dietitian is capable of determining the correct insulin dosage per meal and advise whether and how much insulin is needed for snacks.

She can also monitor blood glucose levels after meals with a low glycemic index.
When documentation of the sensor is sufficient, a calculation of the insulin/carbohydrate ratio per meal can be made for diabetes mellitus type 1 and in some cases also for diabetes mellitus type 2, depending on the beta cell function. In case of usage of CSII, the result can, in a optimal situation, be used in the bolus calculator. However, this will be a huge change for the client, because he or she is not used to deal with their diabetes in this particular manner. A course in carbohydrate counting is therefore of the bare essentials.

All these efforts are not wasted; application of this method leads to a decrease in postprandial peaks, less hypos and improved Hba1c values.

ISLET TRANSPLANTATION – A CLINICALLY PROVEN THERAPY FOR SEVERE HYPOGLYCAEMIA

Prof James Shaw
Professor of Regenerative Medicine for Diabetes at Newcastle University, UK

The DCCT conclusively confirmed that long-term microvascular complications of Type 1 diabetes can be prevented by restoration of near-normal glucose levels. Despite ongoing refinements in management including structured re-education, optimized insulin analogue regimens, continuous subcutaneous insulin infusion and even steps towards the bioartificial pancreas, exogenous insulin replacement is inextricably linked to risk of severe hypoglycaemia.

Transplantation of whole pancreas from deceased donors has confirmed that successful ß-cell replacement restores physiological glucose sensing and insulin secretion. This enables blood glucose lowering in tandem with absolute prevention of hypoglycaemia. Pancreas transplantation has largely been confined to those with end-stage renal failure given the need for a major operation with associated morbidity and mortality.

Successful transplantation of insulin-secreting islets following minimally invasive portal vein cannulation was realized in Edmonton, Canada in 2000. Although 90% had recommenced 'top-up' insulin injections at 5 years, graft function was maintained in 80% with mean HbA1c 6.5% and no major hypoglycaemia. Success has been replicated world-wide in insulin-sensitive individuals with unresolved recurrent severe hypoglycaemia significantly impairing quality of life; and in those with sub-optimal glycaemic control who are already on life-long immunosuppression following a renal transplant.

Islets have been successfully transported between centres, established in culture and manipulated in vitro prior to clinical transplantation. This has provided important proof-of-principle for future potential stem, human somatic and xenogeneic cell replacement approaches. These will be critical to overcome limitations imposed by restricted availability of suitable deceased donors sufficient for <1% of individuals with Type 1 diabetes.

Although still in its infancy, with further research required before widespread implementation can be contemplated, islet transplantation provides an evidence-based new therapeutic option for a carefully selected minority with complex Type 1 diabetes unresponsive to conventional medical management.

THE MULTIPLE CHALLENGES OF MANAGING DIABETES IN AN AGEING EUROPEAN POPULATION

Hans-Ulrich Iselin
Specialist in Internal Medicine FMH, Consulting physician for Diabetes,
Health Center Fricktal, CH-4310 Rheinfelden, Switzerland

Ageing populations are one of the most important challenges for the social, economic and political coherence and balance of developed societies. They produce strain on human resources in nursing and on the financing of healthcare, especially in diabetes. For the Health Care Provider on the ground, it is important to realize the differences in the process of ageing between type 1 and type 2 diabetes patients. Confrontation with T1D in childhood and adolescence produces coping strategies aimed at optimizing present time wellbeing and minimizing late complications. Ageing T1D patients tend to become more competent , more confident and more serene when they realize that through their relentless effort they are able to manage their ageing process in a more active and effective way than many of their nondiabetic contemporaries.

Persons that are diagnosed with diabetes in midlife or towards the end of their active life experience a different scenario. The burden of diabetes often comes as a surprise and an additional challenge to their everyday struggle for survival. Their biography and their past life-style have left deep marks on their preparedness to cope with new challenges. Simultaneously, discrete cognitive impairment may interfere with their capacity to understand important issues and with their learning speed.

Regarding an elderly person with diabetes, the healthcare professional must take into account not only the learning process the patient has gone through before, but also possible cognitive deficits that could influence the efficacy of counselling in a negative way.

Catarina Andrade

Catarina Andrade holds a degree in Sports Science, mention Physical Education and School Sport, and a Master in Sports Management - Lisbon Technical University - Portugal.

She worked in schools as a physical education teacher and provided services in the diabetes domain involving physical activity training oriented to patients and health care providers.

Most remarkably, in Diabetes field, her work for Portuguese Diabetes Association has contributed to carry forward several projects: Summer Camps, Sportive Saturdays and Physical Activity Trainings. More recently she has been cooperating with Maison du Diabète, (Luxembourg) in Physical Activity awareness sessions for people with diabetes.

Margarida Cardoso Barradas

Margarida Cardoso Barradas, Dietitien, works at the Portuguese Diabetes Association for 20 years.

Since then, she has experience in diabetes consultations, group education sessions for people with diabetes and family, education sessions in schools, and elderly houses, courses and training for Health Care Providers.

She wrote a book with a nurse, "An adventure in the Hospital" for children with type 1 diabetes, and their parents and HCPs

José-Manuel Boavida

José-Manuel Boavida graduated in Medicine in 1978 and specialized in endocrinology in 1988. In 2002, he got the Therapeutic Patient Diploma, from the University of Geneva, coordinated by Prof. Jean-Phillipe Assal. Since 2000, he has been the coordinator of the Portuguese Diabetes Association's Seminars about Education in Chronic Diseases.
In 2006 he took the DESG (Diabetes Education Study Group) Presidency and coordinated the Portuguese part of the International Campaign for a UN Resolution on Diabetes – UNite for diabetes – in which Portugal had a determinant role.
Currently, he is the coordinator of the Portuguese Plan for the Prevention, Control and Care of Diabetes.

Alexandra Costa

Alexandra Costa, diabetic since 1995, when she was 10 years old. She has insulin pump since July 2010. She has a degree in Education Sciences and did a project with youngsters in group appointments, called "Group education sessions for young people with Type 1 Diabetes" and she used to be monitor in summer camps. She has an active participation in the demystification of the diabetes as a disabling disease. Her best characteristics are the ease of communication and her positive perspective about her life with diabetes. Her personal motto is: adapting diabetes in my life, not my life to diabetes.

Prof Lea Duvnjak

Professor of Internal Medicine, School of Medicine, University of Zagreb; Vuk Vrhovac Clinic for Diabetes, Endocrinology and Metabolic Diseases, Merkur University Hospital, Zagreb, Croatia.
Graduated from the School of Medicine, University of Zagreb in 1986; specialized in internal medicine in 1995, in endocrinology and diabetology in 1997; obtained PhD degree in 1999; principal investigator of different research projects of the Croatian Ministry of Science; member of several national professional societies, EASD and ADA; published 80 scientific papers.
Research interests include micro-vascular complications in type 1 diabetes, metabolic syndrome, hypertension, new therapies of type 2 diabetes, with the focus on incretin mimetics.

Prof Angus Forbes

Professor Forbes holds the FEND Chair in Diabetes Nursing. He is based at King's college London and has an honorary post as a specialist diabetes nurse at King's College Hospital. Prof Forbes is an active researcher in diabetes, recent studies include: a national scoping project on diabetes care and organisation; an assessment of the nursing contribution to chronic disease management (diabetes); and telephone intervention to support weight loss in type 2 diabetes. Angus also runs a wide range of different courses for health professionals in diabetes. He has an interest in E-health and psychological interventions in diabetes. 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.

Prof Sally M Marshall

Educated at University of Glasgow (BSc 1975, MB 1978, MD1990).
Currently, Professor of Diabetes, Institute of Cellular Medicine, Newcastle University and Consultant Physician, Newcastle upon Tyne Hospitals NHS Trust.
Research interests in diabetes and the kidney, particularly the natural history, genetics and the links with cardiovascular disease and hypertension.
Editor, Diabetic Medicine 2005-2009.
Associate Editor, Diabetologia 2010 onwards
Past Vice-President, European Diabetic Nephropathy Study Group

João Valente Nabais

João Valente Nabais, has type I diabetes for the past 30 years. Chemistry Professor at the University of Evora (Portugal) by profession but working at diabetes field from the hearth. He has been involved in several activities of the Portuguese Diabetes Association (APDP) namely at educational and Board level.
Actually is the President Elect of IDF Europe with responsibility on EU affairs

Jean O'Connell

Jean O'Connell is a specialist lecturer in endocrinology and a senior member of the Obesity and Immunology Group in St Vincent's University Hospital Dublin. She has also been a member of St Columcille's Hospital multidisciplinary weight management team for the last 10 years.
Her primary research interest is the study of immune and metabolic effects of obesity and she recently completed a PhD thesis focused on the demographic and metabolic profiles of severely obese patients, and adipose tissue morphology and function in metabolically healthy and unhealthy obese patients undergoing bariatric surgery.

Carl Johan Östgren

Carl Johan Östgren ,MD, PhD, works as a General Practitioner and Associate Professor at the Department of Medical and Health Sciences, Linköping University, Linköping, Sweden. Research topics of special interest are the prospective impact of blood pressure, lipids, inflammation, genetics and renal function in relation to atherosclerosis, arterial stiffness, and cardiac left ventricular function on cardiovascular risk in patients with type 2 diabetes.

João Filipe Cancela Santos Raposo

João Filipe Cancela Santos Raposo, graduated in Medicine in 1988 by the Medicine Faculty of University of Lisbon and got his PhD in Medicine – Endocrinology in 2004 by the Medical Science Faculty of New University of Lisbon.

He had his Endcorinology residency in the Portuguese Cancer Institut from 1991 to 1997. Currently he is an Invited Assistant Professor of Public Health in the medical Sciences Faculty of New University of Lisbon and Clinical Director of APDP – Portuguese Diabetes Association.

Lurdes Serrabulho

Lurdes Serrabulho, RN, specialized in Public Health, works at the Portuguese Diabetes Association for 19 years. She has experience in diabetes consultations, group education sessions, courses and training for HCPs. She worked with children, youngsters and parents in individual and group appointments and summer camps for 15 years and developed a research about "The Health and Lifestyles of Adolescents with Type 1 Diabetes" during her Master Degree in Educational Sciences. She is now studying for PhD with a research about "The Health and Lifestyles of Young Adults with Type 1 Diabetes".
She is Training Coordinator for 6 years.
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James Shaw

James Shaw is Professor of Regenerative Medicine for Diabetes at Newcastle University and Honorary Physician at the Newcastle Diabetes Centre and Freeman Hospital.
Following a PhD as an MRC fellow with Kevin Docherty exploring gene and cell replacement therapy for diabetes, a Glaxo-Smith-Kline Senior Fellowship enabled him to move to Newcastle and join the world-acclaimed diabetes team there.
In addition to setting up a translational research laboratory he has established a regional insulin pump service, is a member of the Newcastle pancreas transplant team and clinical lead for islet transplantation.
He is principal investigator on a £1.3M Diabetes UK multicentre grant to foster collaborative UK research in severe hypoglycaemia, optimised analogue treatment, pump therapy and continuous glucose monitoring. He chairs the United Kingdom Islet Transplant Consortium who attained dedicated NHS funding for this intervention as an established clinical procedure in 2008. This has underpinned a further multicentre Diabetes UK grant to prospectively evaluate biomedical and psychosocial outcomes in all UK islet recipients. He is clinical lead for the Newcastle Biomanufacturing Cellular Therapies facility exploring novel stem and adult cell therapies for those with type 1 diabetes.

Hans-Ulrich Iselin

Hans-Ulrich ISELIN (b.1944) is a specialist in Internal Medicine, Senior Consultant for Diabetes, and former Physician-in-Chief (1985-2009) of the Department of Medicine, at Gesundheitszentrum Fricktal, in Rheinfelden, Canton Aargau, Switzerland. He is a member of several societies including the Swiss Society of Endocrinology and Diabetes, EASD, and ADA. He has worked as a lecturer in diabetes and metabolism at the Basel School of Nursing, Switzerland (1980-2009), and continues to work as member of the board and permanent moderator at DESG Deutschschweiz, and as consultant for Discrimination Prevention in Diabetes for the Swiss Diabetes Association.

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1

"IT COSTS TO BE AMONG THE BEST"

- A STUDY OF ASSOCIATIONS BETWEEN CHILDREN'S HBA1C LEVEL AND MATERNAL PERCEIVED SOCIAL SUPPORT AND SOCIAL LIMITATIONS

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Background

Mothers are most often the primary caregivers of children with type 1 diabetes. It has previously been described that social support enhances the mothers' ability to cope with the demanding daily treatment tasks related to the child's diabetes. However, it has also been indicated that this group of mothers report to have less access to child care than mothers in general.

Aims

In this study we aimed to investigate whether there was an association between the children's glycemic control (HbA1c) and the mothers' experience of social support and social limitation because of the child's diabetes.

Sample and methods: The sample consisted of 103 mothers of children (age 1-15 years) with diabetes. The mothers completed the Oslo 3 item Social Support Scale (SS) (a generic instrument measuring number of confidants, sense of concern/interest from others and support from neighbors) and a single question regarding their experience of social limitation because of the child's diabetes. The children's HbA1c value was collected from medical records. A multivariate regression analysis was performed.

Results

Mean age of the 115 children were 10.6 yrs (range 1.6-15.9), mean diabetes duration 3.9 yrs (0.3-14.2) and mean HbA1c level 8.1% (SD 1.03). No significant association between HbA1c and the mothers SS score was identified (regr. coeff. 0.03, P = 0.644). However, a significant association was identified between lower HbA1c and strong or slight vs none experience of social limitation because of the child's diabetes (regr. coeff. -0.64, P = 0.025) when controlling for the mothers education level, employment status and marital status.

Conclusions

The association between better glycemic control and perceived social limitation might tell us that mothers, who are coping well, are able to successfully integrate the disease into their daily routines, but these efforts call for certain "costs" and "limitations" as they might spend much of their total available energy on treatment issues related to the child with diabetes. "It is demanding to be among the best!"

2

TECHNIQUES OF INSULIN THERAPY IN PATIENTS WITH DIABETES MELLITUS

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Background

Patients with diabetes treated with insulin therapy require the learning of correct giving insulin for good metabolic control.

Aim

Our goal was to assess key parameters in insulin injection technique amongst Polish patients with a view to promoting best practice.

Methods

We used a validated patient and nurse questionnaire followed by an examination by the nurse to assess multiple parameters related to optimal practice. Five Diabetes Centers participated between February and March 2010, 20 patients each for a total of 100 injectors.

Results

The mean age was 53 years, BMI 28, HbA1c 8.1%. 95% of the patients use the pen. The patient questionnaire revealed that the abdomen is the most commonly used site. 82.6% of patients inject using a pinch-up. 28% of patients release the pinch up before the end of the injection and 37% after the injection, meaning that 65% released the pinch up too soon. 84.9% use large injection areas (size of A5 sheet) in the abdomen, 84.3% in the thigh but only 40% in the buttock and 36.4% in the arm. 90.7% of patients rotated within the same site and 50.5% report having or having had lipohypertrophy. 58.7% patients have never had their injection sites examined by a nurse. The nurses questionnaire revealed that 11.2 % patients had visible lipohypertrophy in the abdomen site on the day of the questionnaire, 15% in the thigh, 5% in the buttock and 6.3% in the arm. 3.2% have pain in the abdomen sites on palpation and 11.7% in the thigh.

Conclusion

Polish diabetes nurses should conduct a systematic re-education of patients regarding best practice in injection techniques during visits to the Clinic. The nurse should check the sites of injections and teach the patient how to perform a self examination for early detection of lipodystrophy. The diabetes team must emphasize the advantages of good blood glucose results as a result of proper technique.

3
YOUNG ADULTS EXPERIENCES OF LIVING WITH TYPE 1 DIABETES: A QUALITATIVE DESCRIPTIVE STUDY.

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Background: Young adults with Type 1 Diabetes are confronted by many challenges during this stage of their development. As they take over responsibility for their own care life-long patterns of behaviour are set. This period provides a window of opportunity for nursing to improve the psychosocial and clinical outcomes for these young adults. In the absence of any effective means to prevent Type 1 Diabetes appropriate education and management programmes are required to provide high quality care.

Aim: The research literature on Type 1 Diabetes continues to develop however the focus of the studies has not been on the experiences of young adults with Type 1 Diabetes. No studies were identified in an Irish context on the experiences of this particular group. The aim of this study therefore was to explore and describe the experiences of young adults with Type 1 Diabetes during this developmental stage.

Method: A qualitative descriptive study was conducted using a purposeful sample of ten young adults with Type 1 Diabetes aged twenty to thirty five years. The theoretical perspectives of the young adult stage of human development outlined in the literature provided a guide for all aspects of this study. Audio-taped semi-structured interviews provided the data collection method. Data was analysed using Burnard's (1991) content analysis framework.

Results: Nine main themes were identified in the data analysis.

- Accepting Diabetes as Normal.
- Plan Well and be Prepared
- Parents and Siblings: Family Dynamics.
- Personal Relationships and Friends.
- Need for Awareness and Understanding.
- Social Life, Alcohol and Diabetes.
- Fear of Complications: The Horrific Side-Effects.
- Hypoglycaemia: The Loss of Control
- Lifestyles.

Recommendations: A more individualized approach to disseminating information particular to young adults' specific needs.

Greater emphasis placed on finding practical solutions to the daily difficulties faced by these young adults with Type 1 Diabetes.

Heightened awareness of Type 1 Diabetes for both public and professionals.

Further research.

4
PERSPECTIVES OF PATIENTS WITH TYPE 1 OR INSULIN-TREATED TYPE 2 DIABETES ON SELF-MONITORING OF BLOOD GLUCOSE: A QUALITATIVE STUDY

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Background
Self-monitoring of blood glucose (SMBG) is an important tool to achieve good glycemic control. However, many patients measure glucose values less than professionals recommend.

Aim
The aim of the study is to explore the perspectives of patients with type 1 diabetes (T1DM) or insulin-treated type 2 diabetes (T2DM) regarding SMBG.

Method: In-depth interviews were conducted with 13 patients with T1DM and 15 patients with T2DM. The interviews were transcribed and analyzed using the Grounded Theory. Specific explored themes were impact, attitude, motivation, needs, barriers and facilitators.

Result
Patients experienced a discrepancy between their goals and perceptions, and that of the professionals. Patients' perception of SMBG was situated on a continuum between 'friend' (tool) and 'enemy' (burden). Furthermore, patients experienced tension between achieving good glycemic control and quality of life, seeking for balance. They deliberately made their own choices regarding the goals. The performance of SMBG was tailored to their perceptions and personal goals. Patient- and environmental factors like hypo- or hyper (un)awareness, knowledge, contacts with professionals were either a facilitator or a barrier to SMBG, depending on the patients' perspective.

Conclusion
Professionals primarily present SMBG as a tool in order to achieve strict glycemic control. Whereas patients can also experience SMBG as a burden and they are primarily seeking a personal balance between achieving glycemic control and quality of life, leading to deliberately other choices regarding SMBG than was advised. Getting insight and discussing all factors of SMBG, including personal barriers and facilitators, can help professionals to balance this with what is recommended from guidelines in order to tailor SMBG to the individual patient

5
IDENTIFYING TURNING POINTS IN DIABETES SELF-MANAGEMENT MAY SUPPORT PATIENT OUTCOMES

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Background
The basic treatment of type 2-diabetes is adaptation of lifestyle including weight loss, physical activity and diet changes. Informing patients about advantages with lifestyle change is not enough. To reach a so-called turning point, patients need time to negotiate about the meaning of illness and their need for self-management activities.

Aim
To describe the process of illness integration and turning points in self-management in type 2-diabetes.

Method
Eighteen patients diagnosed with type 2-diabetes were by random asked to participate in narrative interviews and analysed with qualitative content analysis.

Result
The preliminary result reports that increasing symptoms, increasing insights, a gradual adaptation and normalization of self-care activities were elements in a process of integration that led to a sudden awareness about the need for change i.e. a turning point. This sudden awareness were expressed as being in a cross road; there is no return; being in a life and death struggle; it's up to myself to decide; it's possible for me to change the outcome; it is possible to live with the disease.

Conclusion
The result is strengthening previous research suggesting that illness integration includes emotional and existential aspects that need attention. If more attention in the patient reception is paid on emotional and existential aspects of having a disease, self-management is facilitated. Health professionals and diabetes nurses are ideally placed to support people and are important for identifying these elements in the process.

6
ADAPTATION OF THE DIABETES FEAR OF INJECTING AND SELF-TESTING QUESTIONNAIRE (D-FISQ) IN TURKISH AND EVALUATION OF PSYCHOMETRIC FEATURES IN DIABETIC PATIENTS

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Aim
The aim of this study were to adapt the Diabetes Fear of Injecting and Self-Testing Questionnaire (D-FISQ) in Turkish language and evaluating psychometric features.

Methods
The study was performed among 350 diabetic patients (135 of type 1 and 215 of type 2). Primarily adaptation of language and cultural equivalence of D-FISQ was revised and then reliability and validity was studied. Reliability was evaluated with internal consistency, and stability to time. Internal consistency was evaluated with Cronbach's alpha and item total correlations; and test-retest correlation was examined for stability to time. Validity was evaluated with construct validation and distinctive validity; and construct validation was assessed with confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) techniques.

Result
For internal consistency, Cronbach's alfa values was calculated as 0.96 for total D-FISQ, 0.93 0.95 for fear of self-injecting (FSI) and for fear of self-testing (FST). Item total correlation coefficiencies were changed between 0.75 and 0.85 for FSI and were changed between 0.72 to 0.86 for FST. Intraclass correlations for D-FISQ, FSI and FST were 0.96, 0.93 and 0.95, respectively. Independent and one- factor models have not met fit index criteria in CFA; however, two-factor model had better fit index compared to one-factor model model. Factor loadings for items in both dimensions exceeded 0.40. All items gathered under the relevant factor. Strong positive correlation were found between both subscales (r= 0.76). Following CFA, we re-tested D-FISQ's structure by EFA. Varimax rotation yielded two factors with eigenvalues >1, explaining %73.1 of the variance. D-FISQ discriminated patients who have different level of anxiety.

Conclusion
The D-FISQ had satisfactory psychometric properties. It can be used to measure fear of injection and self- testing in Turkish diabetic patients.

7
EVALUTION OF DIABETES EDUCATION IN PATIENTS WITH TYPE 2 DIABETES IN MONGOLIA

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Background
In population based STEP survey in 2009, the total prevalence of type 2 diabetes (T2D) was around 6,5% in Mongolia1. The acquisition of the relevant skills for successful self management may play a key role in tackling beliefs about health and optimizing metabolic control , rick factors and quality of life. 2 Educating patients about diabetes may have a pivotal role in encouraging and supporting them to assume active responsibility for the day to day control of the condition3.

Aim
To evaluate the diabetes education conducted among outpatients with type 2 diabetes

Method
The study involved 109 patients with type 2 diabetes under the control of endocrinologists at National Central Clinical Hospital. The knowledge about diabetes was evaluated with the 4 package questionnaire with 16 questions before and after the education, and clinical measurements including BMI, waist circumference, blood pressure, HbA1C, Blood cholesterol and Triglyceride were tested before, 1 month and 6 month after the education. The statistical data analyzed by the SPSS12.00 software.

Result
Following the inclusion criteria and obtaining an informed consent per individual, 109 participants with age ranges from 26-54 involved in the study. 7 participants were excluded from the study. Of the study participants 77% from urban and 23% from rural area and 51% was male and 49% was female. The average duration of illness is 3, 8±1, 6 year. A total of 5 day training was conducted per individual and group. The participants knowledge about disease was significantly correlated with fasting blood glucose, waist circumference and BMI ($r=0,18$, $p<0,005$) before and 1 and 6 month after the training. HbA1c level was improved significantly ($P < 0.02$) after 6 month of the training.

Conclusion
The individual and group diabetes education is important for patients with type 2 diabetes patients.

8
EFFECTIVENESS OF A COMMUNITY ORIENTATED DIABETES EDUCATION (CODE) PROGRAMME FOR PEOPLE WITH TYPE 2 DIABETES?

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Background
Audit is an essential component of structured diabetes education with most established programmes showing positive effects. However, audit of post educational intervention outcomes are dependent on participants completing the programme. There is currently, little research into the psychological or demographic attributes of non-attendees for post educational intervention evaluation.

Aim
A quantitative research design was used to identify the psychological and/or demographic characteristics of people who benefit from and those who fail to complete post educational intervention evaluation.

Method
Data on demographic, biomedical, knowledge and psychological measures (DES-SF and WHO-5) were collected from participants attending the Community Orientated Diabetes Education (CODE) programme. CODE is an eight hour educational intervention delivered locally over six months independently of this study.

Results
392 pre-programme evaluations (98% or total) were analysed of which only 237 (59%) completed the post-programme evaluation and demonstrated positive outcomes. At group level, they were more empowered, reported better quality of life, had more knowledge/understanding of diabetes self-management and had lost weight. At an individual level, some people scored higher for knowledge and empowerment at baseline than post programme. Non-attendees at week 26 were younger, more often smoked and reported poorer quality of life at baseline.

Conclusion
Analyzing the results of evaluation showed positive change at group level similar to other programmes. However, this does not mean that all people benefited. Almost one third of attendees at the complete programme reported being less empowered post – evaluation which was unrelated to demographics. Over one third of participants did not attend the post-evaluation session and could be considered non-attendees which further question the validity of positive effects. Findings indicate the need to evaluate change at an individual level and to target younger people to retain their attendance for the full educational intervention. Further qualitative research is warranted to further identify reasons for attrition and explore possible methods of retention and quantitative research to facilitate individual change analysis.

9
A MODEL OF INTEGRATION OF ILLNESS AND SELF MANAGEMENT IN TYPE 2 DIABETES

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Background
Integration of illness is a developmental process which refers to the emotional and existential aspects of being ill and concerns learning to live with a chronic illness. Integration of illness defines the process a person undergoes from suspicion or information about a diagnosis to a situation where the illness management is seen as a natural part of life. Despite the common use of terms such as illness integration and self-management, there exists little research that investigates how these concepts relate to one another.

Aim
To describe the process of illness integration and self-management among people with Type 2 Diabetes.

Method
This paper reports a secondary analysis of an interview study among people diagnosed with Type 2 Diabetes, focusing on personal understandings of illness. The research approach was narrative interviews analysed with qualitative content analysis.

Results
Illness integration in Type 2 Diabetes in general run parallel with the self management process and a turning point is reached when people seem to easily adapt to the illness emotionally, existentially and in practice in daily life. Suspecting illness and/or being diagnosed; Understanding and explaining illness; and Negotiating illness and taking stands about self management are important elements in this process which is framed by the conditions 'Perceived seriousness and threat of disease; Intensity and nature of emotional response; Personal goals and expectations' and lastly 'Perceived effects of self-management'.

Conclusion
Illness integration and self management processes develop simultaneously and may eventually end up in a turning point making self management easier in daily life.

10
BEYOND THE HORIZON OF GIVING BIRTH TO A HEALTHY CHILD- BECOMING A MOTHER FOR THE FIRST TIME – AND HAVING DIABETES.

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Background
Good glycemic control in the preconceptional period and throughout pregnancy in women with diabetes is of paramount importance but often deteriorates after delivery.

Aim
Pregnancy – motherhood transition known from new mothers' perspectives might clarify what is needed to maintain improved glycemic control after childbirth.

Method
Five individual semi structured interviews and one focus group interview with mothers of healthy children were conducted. The interviews were analysed using constant comparison.

Results
The analysis pointed in the direction of a possible phase theory.

Good glycemic control for the sake of the child was the shared patient –provider goal during pregnancy, ending at a horizon of giving birth to a healthy child.

Great relief immediately after delivery followed by a well earned pause contrasted the stressful pregnancy with strict blood glucose control and weekly appointments but was also combined with a feeling of being left alone with the child and diabetes. A challenging clash of mother – child needs was managed stepwise: 1. The child first priority 2. The child or me dilemma and sooner or later 3. The child and me recognition.

Getting back on track of diabetes management became a struggle.

Conclusion
All the women achieved near normoglycemic levels during pregnancy but the postnatal diabetes self management tended to match the problems of diabetes management experienced before pregnancy.

Diabetes was downgraded until the complex transition to motherhood had reached the stage where the women considered both their child's and their own needs in diabetes management.

Hereafter the women wished to, but mostly were unable to get back on track and their expectations of keeping good glycemic control after delivery were disappointed.

Indicating that an intensified intervention in the pregestational phase should focus on reaching a good glycemic control based on intrinsic motivation leading to action based on autonomy facilitating the child and me recognition.

11
STUDY OF EUROPEAN NURSES IN DIABETES (SEND): SUBANALYSIS OF SPANISH RESULTS

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Aim
To know the role performance, training and job satisfaction of diabetes nurses working in different levels of care in Spain, taking as reference the SEND study.

Method
The study population was nurses who work with diabetic patients in different levels of care. It was made a translation and cultural adaptation to Spanish of the SEND survey with additional questions in order to know the work place and specific post graduate education and training. Questionnaires were sent via website, through five different scientific Spanish associations. Data were collected and registered in an access database to statistic analysis in Maastricht.

Results
from 2179 European nurses completed questionnaires, 111 were Spanish. The nurses' work place was: 58.9 % at hospital 10.3 % in specialty care centers and 30.8 % in primary care centers. Spanish nurses have more professional experience (23.7± 8.3 years vs 13.2 ± 8.9 years)* and develop more competences (10 vs 5) than European nurses. Spanish nurses in specialized care vs primary care, we observe: 1) more experience in diabetes (ns), 2) more specific post graduate training in: a) Diabetes (55.1 % vs 21.2%)*, b) nutrition (ns) c) Therapeutic patient Education (46.8 % vs 12.1%)* d) "Diabetes Specialized Nurse" (ENDCUP project) (11.1 vs 3%)*; 3) higher level of continuing training related to therapeutic education (74.6% vs 42.4%)*; 4) In both, specialized and primary care, the type of activities in all areas are mainly aimed at lifestyle changes and prevention of complications; 5) Individual only education (50.8 % vs 72.7%)*, individual and group (47.6% vs 27.3%)* (* p< 0,05). The specific roles of diabetes specialist nurse as educator, consultant, researcher, manager, collaborator and innovator are more present in specialized care.

Conclusions
The low percentage of responses we have obtained make it difficult to standardize the nurse professional role, although the results of this study suggest that nurses in Spain have more competences than other countries. In Spain, nurses of specialized care have more academic training and professional roles. Patient education in group is more present in specialized care..

12
PERCEIVED KNOWLEDGE ABOUT DIABETES IN COMMUNITY CARE - A QUALITATIVE INTERVIEW STUDY

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Aim
The aim was to explore health care personnel's self- perceived knowledge about older persons with diabetes type 2. The results of the study will be used in the development of an instrument for the purpose of knowledge control in delegation.

Method
A qualitative approach with individual interviews and focus-group interviews was used. The qualitative interview method was used to identify what knowledge about diabetes the health care personnel perceived that they had. Interviews were carried out on three occasions. A total of 22 persons participated.

Result
The study revealed that health care personnel perceive their knowledge as inadequate. This applies particularly to symptoms, treatment and the action to be taken in a change of health status of the older person with diabetes type 2. The major uncertainty is knowledge about blood sugar levels, what the normal blood sugar value is as well as low and high levels. The participants also perceive that they have inadequate knowledge concerning individual goals. These results indicate that health care personnel have difficulties in working according to the national guidelines that focus on achieving an asymptomatic status and quality of life. However, the study shows that the participants perceive that they have good knowledge in nursing interventions that lead to good prevention, especially foot complications.

Conclusion
Overall, the study shows that health care personnel need regular structured education on diabetes to enable them to provide good and safe care.

13
JEWISH MIGRANTS WITH DIABETES MELLITUS IN SAXONIA AND SAXONY-ANHALT (GERMANY): SUBJECTIVE HEALTH EXPERIENCES AND INDIVIDUAL RESOURCES OF COPING – RECOMMENDATIONS FOR CHANGE OF COUNSELLING

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Background: The largest group of migrants in Saxony and Saxony-Anhalt (Germany) are from the former Soviet Union. These include a large proportion of Russians, ethnic German immigrants and a minority of Jewish migrants. It is assumed that other factors than only language barriers may impede an effective consultation and counselling in Jewish migrants.

Aim: This study aims at identifying factors improving diabetes education and counselling for Jewish migrants with diabetes mellitus.

Method: 18 Jewish migrants with diabetes mellitus were recruited. Problem focused individual and group interviews were performed according to Witzel and analysed using qualitative content analysis as described by Mayring.

Results: The identified categories were: *language barriers, perception of the cause of illness, experiences of health and diabetes mellitus, social support*.

Stress was predominantly considered to be the cause of diabetes mellitus. The participants often preferred treatment decisions made by the physician alone rather than being involved in the decision making process. In contrast, adherence to medication was very variable. Alternative therapies - often prescribed in the home country - were used additionally to the treatment regimen.

Experiences of diabetes mellitus had a lower priority than other problems like unrealized expectations of emigration and recommendations for lifestyle changes which may reduce the migrant's quality of life. Affected people find social support by their families as well as in the Jewish parish and Russian centres and houses.

Counselling should be conducted in the native language of the people concerned. The participants did not always esteem their family members or the interpreter as appropriate for an effective communication. Wishes for an educational programme include the subject's nutrition, hypoglycemia and comprehension of the German social and health care system

Conclusion: Existing therapies should be challenged consistently. The use of alternative therapies should be deemed to cope with the disease. It is recommended that future education programmes comprise practical elements and repetitions and should be available for all migrants in their mother tongue.

14
IRANIAN PEOPLE'S EXPLANATION FOR DIABETES

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Background

Understanding people's views who do not have diabetes about diabetes and how it affects their thought is central to understanding how they respond to people with diabetes in Iran.

Aim

The aim of the study was to explore and describe Iranian people's understanding of, and explanation for, diabetes.

Method

A qualitative research approach using in-depth interviews was used to collect the data between October 2010 and March 2011. Themes were identified using content analysis.

Result

Fourteen people who did not have diabetes participated in this study. They had a variety of beliefs about, and explanations for, diabetes. Five themes emerged from the analysis that indicated: diabetes is the end of hope and wish, it is a gradual death, it is a dreadful disease, it is a dangerous and mysterious disease, and better than cancer and acquired immunodeficiency syndrome (AIDS).

Conclusion

Iranian publics' beliefs and personal interpretation of diabetes is strongly influenced by the ability of people with diabetes to manage the illness, and by socio-cultural factors. The findings will help health professionals appreciate how Iranian people without diabetes view the illness and help them respect cultural perspectives when delivering care to achieve optimal health and wellbeing.

15
GROUP EDUCATION ACTIVITIES FOR YOUNGSTERS WITH TYPE 1 DIABETES

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Background: According to research and Social Learning Theory, youngsters with type 1 diabetes refer great benefits with the participation in group activities with other youngsters; because they can share experiences, improve self-confidence and self-esteem. These activities can help youngsters to surpass difficulties, allowing them a better acceptation of the disease and more autonomy related to diabetes management.

In the Portuguese Diabetes Association we organize group education activities for youngsters with diabetes and their families for 30 years. These programs have contributed to improve experiences' exchange among the participants and to improve learning through problem based methodologies, to develop competences related to treatment and self-efficacy in diabetes' management.

Aim: To evaluate youngsters' opinions about group education activities

Methods: We organized 8 group education activities with 48 participants, 24 boys and 24 girls, between the ages of 12 and 24 years old. We used the "Life's Clock", an interactive methodology, with the following aims:

-To evaluate daily behaviours about nutrition and physical activity, relating with insulin therapy and metabolic control.

-To promote group interaction evaluating and discussing what is presented.

The group sessions were facilitated by multidisciplinary team.

The youngsters fulfilled a questionnaire after the session.

Result: Relating to Activity Usefulness, 69% considered it Very Useful and 31% Useful. Concerning Contents and Methodologies: Very Adequate (54%) and Adequate (46%). Motivation Abilities showed by facilitators: Very Motivating (77%) and Motivating (23%). Group participation: Excellent (44%),and Good (52%).

Regarding to youngsters' opinions about the activities: "very interesting, dynamic, educative, clarifying, different, pleasant, adequate contents, a good way to talk about daily experiences, allowing important ideas and experiences' exchange, learning new ways to improve diabetes management".

Conclusion: Youngsters with type 1 diabetes considered group education sessions mostly Very Useful, Very Adequate and facilitators Very Motivating.

Concerning qualitative evaluation the sessions were: interesting, dynamic, educative, pleasant, allowing experiences' exchange.

We are pleased with these results, which confirm the importance of group education sessions with active methodologies for youngsters with type 1 diabetes.

16
THREE YEAR DESCRIPTIVE ANALYSIS OF DIABETES NURSE EDUCATOR (DNE) CONSULTATIONS IN TAN TOCK SENG HOSPITAL (TTSH)

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Background
Diabetes Mellitus (DM) is a chronic debilitating illness recognized as a global threat worldwide. In Singapore, the current prevalence is estimated to be 10.2% among people from ages 20 to 69. Increasingly, patients seeking treatment in TTSH have diabetes as one of their comorbidities. Each DNE consult seeks to achieve optimal glycemic control through patient education and promoting self-management. Results from this analysis drive future education and quality improvement initiatives for the DNE department.

Aim
Analysis of data gathered from year 2008 to 2010 on the characteristics of DNE consultations.

Methods
Total number of DNE consultations consisted of new cases, review cases and re-referral cases. Details on new cases included: i) referral sources; ii) type of DM patients; iii) main education focus: newly diagnosed DM, poorly controlled DM or hypoglycemia and iv) DM treatment modalities. These data were analyzed and compared over a period of 3 years.

Results
There was an upward trend in the total number of DNE consultations provided from year 2008 to 2010. The increase was especially pronounced from year 2009 (n=4099) to year 2010 (n=5110), with a difference of +24.7%. About two-thirds of the total DNE consultations in year 2008 and 2009 consisted of new cases. There appeared to be a shift in year 2010, which new cases consisted of only 51% while review cases increased to 43%. The percentages of new cases referred from inpatient (71-75%), outpatient (18-20%) and Emergency Department 1-day observation unit (6-10%) remained relatively constant. There was heavy emphasis on management of poorly controlled diabetes (74-77%). Education for newly diagnosed diabetes and hypoglycemia management each constituted 11-13%. A 4% increase of referred patients with insulin treatment was observed from year 2008 (n=833) to year 2009 (n=989).

Conclusion
The increased number of review cases in year 2010 appeared to influence the overall upward trend. Review cases were patients who attended more than 1 DNE consult sessions. Complexity of DM self-management, introduction of new insulin analogues, and improved perception of DNE value to DM care could be contributing factors.

17
EVALUATION OF EDUCATION ON HYPOGLYCAEMIA

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Background
Diabetes mellitus is the most frequent metabolic disorder. Prevention and treatment of hypoglycaemia, which include a series of procedures based on nursing assessments and education-related interventions, are of particular importance in diabetes care. Efficacy of education should be continuously evaluated to determine the level of knowledge adopted.

Aim
Assess the degree of hypoglycaemia education and evaluate it against self-management of hypoglycaemic episodes.

Method
Evaluation of diabetic patient education on the topic of hypoglycaemia was carried out in 132 patients of the Vuk Vrhovac Clinic. The investigation used a standardised questionnaire developed for that purpose. Data were analysed using descriptive statistics.

Result
The study included 45% of men and 55% of women (14% 18-40 yr.-old; 39% 41-60 yr.-old, 47% above 60 yrs. of age). Fourteen percent of the patients had no educational qualifications, 62% had secondary education and 24% had university degree. Type 1 diabetes was present in 21%, and type 2 in 79% of the patients; 66% had concomitant cardiovascular disease, 14% other endocrine diseases, 11% had rheumatic illness, and 5% had cancer. Diabetes duration was below 5 yrs. in 22% of patients, 6-10 yrs. in 36%, and above 10 yrs. in 42% of patients; 76% being treated with insulin, 21% with oral agents, and 3% with diet only. Among the studied patients 15% did not know what hypoglycaemia was, 15% could not recognise its signs, 2% did not know what to do in a hypoglycaemic episode and 18% of patients were not familiar with hypoglycaemic blood glucose values. Only 12% knew about glucagon and its use; 24% had never experienced hypoglycaemia, and 83% had never lost consciousness during hypoglycaemia; 77% ascribed hypoglycaemia to inadequate meal, and 23% did not know its causes. Information on hypoglycaemia were obtained from nurses in 50% of cases, from physicians in 24%, and from other sources in 26% of cases.

Conclusion
Although a significant number of patients with diabetes are treated with insulin, their knowledge about hypoglycaemia and its self-management is worrisome. Evaluation of education is therefore necessary for the improvement in patient education and timely identification of persons and models for better education.

18
"A TOUCH OF DIABETES" – SELF-PERCEIVED KNOWLEDGE AMONG PEOPLE WITH TYPE-2 DIABETES

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Background
It is well known that individuals with a good self-confidence in their self-management of chronic diseases perceive good health.

Aim
The aim of the study was to describe self-perceived knowledge and experiences regarding type -2 diabetes.

Method
On the basis of the Swedish population 3801 people were randomly selected to answer a questionnaire on if they had been diagnosed as having diabetes. Out of 3801 randomly selected, 199 people reported that they had been diagnosed as having diabetes (prevalence 5%) and agreed to participate in the study. The questionnaire consists of 15 items.

Results
The age varied between 40 years to 80 years. A majority of the participants declared that they were overweight. Half of the participants expressed that they had high blood pressure and one third declared that they had high cholesterol. One third of the participants did not know the value of HbA1c, and had also modest knowledge about the diabetes-related complications. Furthermore, 42% had never discussed the risks pertaining to their disease neither with the nurse or the doctor. The participants had been told that they had a touch of diabetes, and that diabetes is nothing to worry about. Participants who expressed good knowledge had lower HbA1c and Body Mass Index (BMI) compared to those with poor knowledge. The level of knowledge was associated with the educational level, i.e. those with a high educational level expressed high level of self-perceived knowledge.

Conclusion
The results showed that patients with type 2 diabetes need more knowledge and understanding about the disease and the treatment. This highlighted the fact that professional in the health sector need to explain the seriousness of the disease to the patients in a clear manner. On the other hand, it is the patients' duty to ask for information. Diabetes type 2 is a serious disease and should not be labeled "a touch of diabetes".

19
CONTAMINATED SHARPS WASTE MANAGEMENT IN THE COMMUNITY

Prata L., Almeida R., Cabral A., Correia I., Dingle M., Fadista S., Ferreira A., Lessa I., Nunes H., Ó D., Oliveira R., Paiva A., Pestana M., Serrabulho L., Zacarias L., Valongo A., Raposo, J. MD
Portuguese Diabetes Association, Lisbon, Portugal

Background
The rise of contaminated sharps waste in community domestic waste, such as needles and lancets in Diabetes area causes concerns in People / Families and Health Care Providers. Portuguese Diabetes Association (APDP) has developed a project to provide distribution, proper storage, collection and treatment of containers for sharps waste.

Aim
Raise awareness amongst people with diabetes treated in APDP about the public health risks involved in the management of sharps waste (needles and lancets).

Method
Distribution of 700 containers (volume of 0.6 lt.), suitable for sharp wastes to 350 People / Families with Diabetes (2 containers per person) from January to December 2010. The distribution took place during the therapeutic education nursing appointment in APDP. The project also included training of health care professionals in the management of hazardous wastes.

Result
100% of the containers were delivered. Only 16.29% of the containers were returned full. The time between the delivery and the return of the first containers was 99.43 days SD [16-252]. The second full container was delivered after an average of 119.53 days SD [37-223]. The majority of people (64,38%) who have returned the containers were less than 18 years old.

Conclusion
The percentage of returned containers was low, but this assessment took place only during the year of 2010. We know that in 2011 more containers were returned, proving that a large percentage of people took almost a year to fill a container. These results arise two hypotheses: that the concern and motivation to the proper waste of needles is low, and that in some cases the needles are reused excessively or the puncher finger lancets are not replaced as frequently as recommended.

20
EVALUATION OF HONEY DRESSINGS IN DIABETIC FOOT ULCER

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Background
Diabetic Foot Ulcer is a serious problem that can result on lower limb amputation. The local treatment of Diabetic foot wound has been studied and faced several different opinions about dressings characteristics designed to create a bactericidal protective barrier to promote the healing.

Aim
Evaluation of ionogen dressings impregnated with moorish honey action in diabetic foot ulcers without positive evolution and/or infected and/or with inflammatory significant signs.

Method
This study involved 12 diabetic foot ulcer cases (n=12). The ulcers evaluation was based on PEDIS scale. The subjects' evaluation had into account some clinical data (people age; diabetes evolution time; A1c hemoglobin; wound duration; the antibiotherapy used and the bacteria identified in the lab through collection of surface swabs.

During the study the following variables were evaluated: evolution of lesions' size, in cm^3; exsudates and infection degree (accompanied by photographic record).

The materials used were ionogen compresses impregnated with moorish honey, saline for irrigation, paper rule in cm; photographic camera; data grid.

Result
Participants had a medium to high risk of amputation. In two months: medium reduction of ulcer's dimensions of 70, 30% [96,38% - 33,33%]; reduction in one infection level (PEDIS Scale) and reduction of exsudate level; the healing process proceeded positively and the bad odor was removed, even in lesions with antibiotics multiresistant bacteria or even MRSA. This ionogen dressings also reduced cellulite around the ulcer and the need for using systemic Antibioterapy, confirming the honey advantageous referred by Molan (1999). It is also relevant to refer that they weren't adherent and didn't cause damage when removed from the ulcer. It wasn't verified the existence of an autolytic debridement despites the literature mention.

Conclusion
The ionogen dressings impregnated with moorish honey had good results in the local treatment of diabetic foot ulcers, especially in presence of infection and/or inflammation; it was not verified a good debriding action. It was also observed that the risk behaviors for the healing process, such as walking without off loading, have a very important role in ulcers evolution even when we used these honey dressings.

21
SATISFACTION WITH DIABETES APPOINTMENTS AT YOUNGSTERS' DEPARTMENT

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Background: All aspects of consultation environment are extremely important for the success of interaction between Health Care Providers (HCP) and the person with diabetes (PWD). A shared waiting room for PWD of all ages can be particularly challenging for parents and children since the conversations at waiting rooms can be negative and related with diabetes late complications, being a factor of non-adherence to consultations.

In Portuguese Diabetes Association (APDP) we have a new pediatric facility with spaces specially designed for children and youngsters, with waiting rooms and where the multidisciplinary team has rooms for group and individual appointments.

Aim: To evaluate parents and youngsters' opinions about HCP's diabetes care and about the environment of diabetes appointments.

Method: A sample consisted of 51 parents and youngsters who attended consultations at APDP. Parents and youngsters fulfilled a questionnaire about satisfaction with diabetes consultations. A quantitative study was conducted to analyze data.

Results: We inquired aspects related to:

- Consultation accessibility: Waiting time – satisfied (60%), very satisfied (30%); Information – satisfied (39%), very satisfied (61%).

- Consultation environment: Cleaning and comfort – satisfied (9%), very satisfied (91%); Organization – satisfied (31%), very satisfied (67%); Privacy – satisfied (25%), very satisfied (73%); Temperature – satisfied (31%), very satisfied (67%); Luminosity – satisfied (19%), very satisfied (78%); Adequate Space – satisfied (29%), very satisfied (71%).

- HCP´s (doctors, nurses, dieticians, psychologist) sympathy, availability, information, competence: 18 - 25% satisfied, 72-82% very satisfied.

- Other personnel: satisfied (40%), very satisfied (60%).

- Service quality: satisfied (33%), very satisfied (67%).

Conclusion: In this sample, parents and youngsters evaluated positively the introduction of this new facility. A considerable improvement was acknowledged in all aspects related to environment and to deliver of care by multidisciplinary team probably because of all the positive context of care.

These aspects should be constantly evaluated to keep and improve the conditions where care takes place. Part of the success of health outcomes is related to the conditions here evaluated. A center that provides good quality of care should be able to keep track of the environmental aspects of a consultation.

22
GROWING UP IN SAFETY: INTERVENTION IN SCHOOLS ATTENDED BY CHILDREN WITH TYPE 1 DIABETES

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Background: Diabetes Mellitus is one of the most frequent chronic diseases in children at school age. However children with diabetes are usually unique cases in schools raising fears and obstacles to treatment. In the proper setting and adequately treated, children may and should have a completely normal school and social life and prevent late diabetes complications.

The reason for conducting training sessions at schools arose from the needs of school staff to acquire knowledge and strategies on how to deal with children with diabetes. Portuguese Diabetes Association has developed this intervention project in schools, with the support of the National Health Ministry.

Aim: To improve social integration and network support of children diagnosed with Type 1 diabetes in school environment.

Method: The target audience were staff of schools having children with diabetes.

Educational sessions were planned: one for children, with information on Type 1 diabetes and healthy eating, and a second for school staff and parents of children with diabetes.

The methodology was interactive.

The school staff and parents filled in a questionnaire at the beginning and three months after the session.

We offered to the school a document file containing information on Type 1 diabetes and with the treatment undergone by children.

Result: We went to 20 schools having 22 children with diabetes. 210 adults of school staff and 273 children without diabetes attended the sessions.

The analysis of the questionnaires showed that hypoglycemias was a major concern: 80% of the children had hypoglycaemias at school, but 60% of school staff did not know how to manage hypoglycemia. After the training sessions 75% of the staff had gained knowledge and felt confident to treat hypoglycaemia .

We noticed an improvement on satisfaction and wellbeing of all participants involved. All adults referred that more information about diabetes improves children integration at school.

Conclusion: This training project of integration of children with diabetes at school promotes adequate strategies to overcome difficulties. It raises awareness of the entire social structure that surrounds the child, including other children.

23
NURSES' PERCEPTIONS ON THERAPEUTIC PATIENT EDUCATION

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Background: Therapeutic Education in Chronic Diseases is a fundamental tool to a better adherence to diseases' treatment and it is considered by World Health Organization as a priority to people with diabetes.

Portuguese Diabetes Association (APDP) has a Training Courses Program for health care providers in this area, training up to 600 people every year.

Aim: Evaluate perceptions of the nurses who attend the courses, relating to Therapeutic Education.

Method: A sample consisted of 141 nurses who attended 8 courses at APDP, from October 2010 to April 2011. On a card, the participants of the course were asked to answer: "What does Therapeutic Patient Education mean to me?" A qualitative study was conducted to analyse the content of the various perceptions.

Result: All data collected was analysed qualitatively and separated in various categories. The main categories identified were:

INFORMATION – 49% - Use of methodologies and teaching tools, orientation, advice, training and learning to help people and their families to adhere to treatment and self-care to improve effective self-control and live better with their disease.

MOTIVATION TO TREATMENT ADHERENCE – 29% - Set of dynamic strategies to increase motivation of the person with diabetes, through phases, changing to adherence and treatment management, in order to improve health, lifestyle and quality of life.

BUILDING A RELATIONSHIP – 26% - Opportunity to build and improve aid and therapeutic relationship with empathy, trust, availability, understanding, congruence, accessibility, sharing, respect, being assertive, commitment, walking side by side.

EMPOWERMENT – 22% - Getting involved and giving tools and power to the person managing his own treatment, so that he feels autonomous and responsible for disease control.

SHARED UNDERSTANDING and NEGOCIATION – 17% - Continuous learning process with sharing of knowledge and experiences, allowing negotiation and mutual exchange.

Conclusion: The Therapeutic Patient Education perceptions of these nurses cover various areas of therapeutic education in chronic diseases, approaching relationship construction and involvement of family, motivation to treatment adherence, information, shared understanding, negotiation, acquiring competences and empowerment. This allows people with chronic diseases to optimize the management of the disease and to improve their quality of life.

24
PREVALENCE OF DIABETES RELATED EMOTIONAL DISTRESS AND RISK ON DEPRESSION IN PATIENTS WITH TYPE 2 DIABETES OF A DUTCH RURAL DIABETESCENTER

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Background
Previous studies reported high prevalence of diabetes related emotional distress and risk on depression in patients with diabetes. These problems can disrupt self-management and have an adverse effect on diabetes outcomes. These problems frequently goes undetected and can remains untreated. Although recommended, integrated care that addresses practical and emotional issues is not a common approach in a Dutch rural diabetescenter.

Aim
We investigated prevalence of psychological problems and associations with treatment outcomes in patients with type 2 diabetes in our diabetescenter. Insight will create a basis for managing structural integrated care.

Methods
Cross-sectional data, collected by validated self-reported questionnaires (WHO-5 and PAID) were derived during January – April 2011 from adult patients with type 2 diabetes, suffering from complication(s) and treated with insulin. Patients were sampled out of a Diabetes Nurse Specialist (DNS) visit list and personally invited to participate. An independent t-test and Pearson`s product Moment Correlation Coefficient test (r) were performed to quantify prevalence's of emotional distress, risk on depression and correlations with glycemic control.

Results
97 patients completed the questionnaires. Prevalence of poor well being (WHO < 50) and severe well being (WHO < 28) was 18,6 % and 8,2 % respectively. Prevalence of elevated (PAID >30) and severe emotional distress (PAID >40) was 11,3 % and 4,1 % respectively. A significant association was found between well being and emotional distress as well as between emotional distress and glycemic control.

Conclusion
Patients with type 2 diabetes treated with insulin and suffering from complications have a burden of emotional distress and an increased risk on depression which can be detected by screening. Screening is an important first step towards an integrated diabetes care approach that addresses both the practical and emotional issues. Further research is needed to investigate whether DNS can play a key role in detecting and monitoring psychological problems.

25
RISKY BEHAVIOUR FREQUENCY AND PERCEPTION OF HAZARDS IN ADOLESCENTS DIABETIC PATIENTS IN CAMP

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Background
Examined the frequency and perception of harmfulness of smoking, alcohol and drugs in children's camp participants.

Aim
To establish how many young people with diabetes are aware of the hazards of these dangerous habits, as how much do they themselves practice them, and what is the prevalence in their surrounding area, as well as among friends and family. Is there a relationship between risk behaviour and physical activities?

Methods
The study involved all participants in a camp for children and adolescents with DM. A questionnaire of 16 questions is used, self evaluation and the frequency of risky behaviour. Answers about the hazards were evaluated according to Likert Scale for assessment of 1-5 (1 is not harmful - 5 very harmful).

Results
The study included 30 children participants of the camp 2009. 83% were girls, average age of 12.93 g and the average HbA1c value of 8.15%. 53% of the children reported to have tried smoking, 27% stated they had done it only once, while 6% smokes on a daily basis. Of the total number of children, 63% of them come from the families where someone from the household smokes every day! Alcohol has been tried among 50% of children, 33% had tried spirits, 67% beer, 40% wine. In 20% of their families alcohol is consumed on a daily basis, while in 77% of families do that only occasionally. Drug met 47% of children. None of the children is not self-experimenting when they met with smoking, alcohol and drugs, 14% were with friends, while 86% were in the company! 77% of children engaged in active sports. Likert Scale assessed that their smoking harms 4.3 out of 5, alcohol 4.1 and drugs 4.9. There was no statistically significant correlation ($p = 0.6746$) between physical activity and smoking, nor is there significant connections between ($p = 0.3898$) between physical activity and alcohol consumption.

Conclusion
A large percentage of children at an early age have tried some form of risky behaviour. They are much influenced by the family and society. We should influence people in their families to reduce every day smoking and consumption of alcohol.

26
AN INTEGRATED APPROACH TOWARDS DIABETES EDUCATION - A UNITED ARAB EMIRATES ROLE MODEL

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The magnitude of Diabetes prevalence in the United Arab Emirates is a major motivation for priority diabetes care, prevention and control of complication and ongoing diabetes education.

Due to the concerns of this diabetes explosion an integrated approach to diabetes care and education is primary, through a process of self care behaviour education.

Poor knowledge and a lack of exposure to diabetes education highlights the need for diabetes education for residents of the United Arab Emirates through an integrated approach. Understanding health needs is essential for effective diabetes management in this population.

As demonstrated in the DAWN Study: Diabetes Attitudes, Wishes, and Needs (DAWN) Program: A New Approach to Improving Outcomes of Diabetes Care, through an international partnership effort to improve outcomes of diabetes care by increasing the focus on the person with diabetes , especially the psychosocial and behavioral barriers to effective diabetes management stressing focus on the delivery of integrated care to people with diabetes is a solution to continuity of care.

At Rashid centre for diabetes and research through an integrated approach as a one-stop facility to diabetes care, access to a coordinated interdisciplinary diabetes care team offers appropriate care to people with diabetes in the United Arab Emirates whether the need is self-management education.Effective team briefing and collaboration according to the complex needs of the people with diabetes allows for early preventative initiatives through cost effective and efficient provision of these specialist services at Rashid Centre for Diabetes and Research

Conclusion: to address these unique concerns of this population and complex play between different cultures and health risks, Diabetes healthcare colleagues need to engage with the community, team colleagues and stakeholders to offer continuous tailored care.

Therefore, continuing to strive to improve standards of care for people with diabetes in line with National Diabetes Guidelines for United Arab Emirates.

IDF and ADA and NICE and AACE is the motivation to strive towards diabetes prevention and complication control on an ongoing basis.

27 (withdrawn)

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TYPE 2 DIABETES RISK ASSESSMENT

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Background
Type 2 diabetes (T2D) is common disease and it's prevalence has been increasing around the world 1. Around half of the individuals with the T2D are undiagnosed 2. The disease is characterized by a long asymptomatic preclinical stage with disturbances in glucose metabolism such as impaired fasting glucose (IFG) and impaired glucose tolerance(IGT). Early detection of T2D is likely to be beneficial from the point of view of the individual as early management of disease 3.

Aim
To assess Type 2 diabetes risk by Finnish Diabetes Risk Score (FINDRISC) questionnaire .

Methods
In this cross-sectional survey using "FINDRISC questionnaire" of Finnish Diabetes Association, we selected the participants randomly among two organizations' employees evaluated the annual health check up at the National Central Clinical Hospital.

Results
A total of 93 subjects was age between 29-56 (65% male, 35% female) Data on the FINDRISC were available from each participant. The FINDRISC risk score was Very high 2,1%, High 10,7%, Moderate 12,9%, Slightly elevated 19,3%, and Low 54,8% respectively. Among the subjects with Very high and high risk score, 5 individuals diagnosed with impaired glucose tolerance (IGT) after 2-hour plasma glucose level in oral glucose tolerance test (OGTT) or capillary blood glucose with 140-200 mg/dl; 1 individual diagnosed type 2 diabetes; and 6 were healthy. The sex and waist circumference (WC) correlation was weak (r=0.25 p< 0.01). The fasting glucose (FG) were correlated to the Body Mass Index (BMI) (r=0,13, p<0,005).

Conclusions
The result indicated that the FINDRISC risk score was Very high 2,1%, High 10,7%, Moderate 12,9%, Slightly elevated 19,3%, and Low 54,8% respectively. Among the subjects with Very high and high risk score, 5 individuals diagnosed with impaired glucose tolerance (IGT); 1 individual diagnosed type 2 diabetes; and 6 were healthy. 90% of people with very high and high risk score had family history and no daily physical activity at least 30 minutes at work and/or during leisure time (including normal daily activity).

29
COULD SCREENING FOR DEPRESSIVE SYMPTOMS IMPROVE TREATMENT SEEKING BEHAVIOUR IN DEPRESSED DIABETIC INDIVIDUALS?

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Background
There is a clear evidence that depression is two to three times more prevalent in persons with diabetes compared to the general population. However, it is recognized and properly treated in only a part of this population.

Aim: This study was aimed at determining the prevalence of depressive symptoms in diabetic outpatients attending their regular medical check-ups, and the degree to which depression is treated.

Methods
A randomly selected sample of 469 outpatients (52% female, aged 58±7 yrs, having diabetes for 9±6 yrs, treated with insulin in 67% cases, with HbA1C of 7.8%±1.5 and BMI of 29±4 kg/m2) was screened for depressive symptoms by using the Center for Epidemiologic Studies-Depression (CES-D) scale. A cut-point of CES-D≥16 was selected to indicate patients with severe depressive symptoms. Diabetes-related distress as assessed by the Problem Areas in Diabetes (PAID) scale was measured in addition to depression. Sociodemographic and disease-related data were collected from the patients' files.

Results
Elevated depressive symptoms were reported in 22% of the examined individuals. Depressive symptoms were more frequently found among female patients (66% vs 49% p=0.03), and in those suffering from diabetic neuropathy (21% vs 12% p=0.04). A number of serious emotional problems caused by diabetes was greater in depressed than in non-depressed individuals (5±4 vs 2±3 p<0.0001). Sixty-three percent of depressed individuals experienced psychological problems in the past, only 54% of them having received psychological treatment. They reported more frequent current use of psychotropic medication compared to non-depressed patients (55% vs 26% $\chi 2 = 14.1$ p= 0.0002), but the majority was taking drugs that could not be supposed to specifically relieve depressive symptoms.

Conclusion
The obtained data indicated that 22% of randomly selected diabetic outpatients experienced elevated depressive symptoms. Compared to non-depressed individuals, they had a higher level of emotional distress caused by diabetes. Anamnestic data suggested that depression was a recurrent state in 63% of the depressed patients and that only a half of them were treated. Regular screening and discussing the findings with patients may improve treatment seeking behaviour.

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19:00 Pre dinner drinks
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Owen Mumford	1
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Sanofi Aventis	24
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