

F E N D

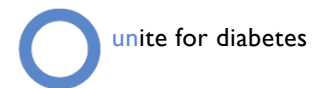
Foundation of European Nurses in Diabetes

19th Annual Conference

12-13 September 2014

Vienna

Austria



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

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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) for reporting this conference.

- **Delegate name badges** courtesy of Menarini Belgium
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CONFERENCE WEBCASTS

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

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



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FEND Mission Statement

The objects for which FEND is established are:

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

Welcome

Dear Participants

On behalf of the Executive committee of FEND it is our pleasure to welcome you to the FEND 19th Annual Conference and the city of Vienna.

The conference this year is multi-faceted reflecting the complexities and continuing challenges of the diabetes epidemic in Europe. The patient experience is centre stage in this year's programme and marks the significant contribution that people with diabetes make in influencing the provision of care and the characteristics of care. The patient narrative will be of profound interest to all.

FEND has played and will continue to play an active role in advocacy, policy development and implementation. To this end as a member of European Coalition on Diabetes (ECD) we are developing a strategy to engage with EU Parliamentarians and also national parliamentarians through ExPAND (the European Policy Action Network on Diabetes).

The contribution of diabetes nurses in meeting the many challenges of the diabetes epidemic is not fully realised in all countries of Europe. To meet this challenge FEND continues to provide an academically accredited training programme led by Prof Angus Forbes, FEND Professor in diabetes nursing, research and education. This programme is available to all members of FEND and it is noteworthy that the cost of this unique programme is funded by FEND.

FEND continues to work with key pan-European organisations within the European Coalition on Diabetes (ECD) comprising EURADIA, FEND, IDF Europe and PCDE.

We thank our distinguished international speakers for their commitment and generosity of time. We thank Prof Andrew Boulton, President EASD for his courtesy and support in permitting this conference to be included in the programme of meetings on the occasion of 50th 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 Vienna.

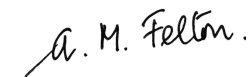
Your attendance at this conference represents diabetes nursing from Europe and beyond – a truly international gathering and evidence of the commitment of the nursing profession to people with diabetes.

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

Kristin de Backer
FEND Chairman



Anne-Marie Felton
FEND President



Friday 12 September 2013			
0730	Registration and Coffee		
0845	Welcome and Opening Remarks	FEND Chairman FEND President	Kristin de Backer Anne-Marie Felton
		Session Chairs	Prof Regina Wredling Dr David Chaney
0900	Overview of Diabetes Education in Austria		Sarah Cvach
0930	Health and Lifestyle of Young Adults with T1 Diabetes		Lurdes Serrabulho
1000	Patient Narrative		Alexandra Costa
1020	Refreshments & Exhibition		
		Session Chairs	Prof Unn-Britt Johansson Debbie Jones
1100	Knowing the Patient: Critical Role of Nurse-Patient Relationship		Chantal Montreuil
1130	Managing Older People with Diabetes: the Story of the IDF Guidelines		Prof Trish Dunning
1200	Patient Narrative		Prof Jean-Philippe Assal
1220	Diabetes Education: A Snapshot From Across the World		Dr David Chaney
1245	Lunch & Exhibition		
		Session Chairs	Chantal Montreuil Lurdes Serrabulho
1400	Person-Centred Care: A Realistic Paradigm in Healthcare		Dr Eva Boström
1430	Highlights of the Policy Puzzle 4th Edition "The State of Diabetes In Europe"		Anne-Marie Felton
1445	Diabetes - Post Bariatric Surgery		Dr Sofie Ahlin
1515	The Politics of Diabetes		Adrian Sanders
1535	Refreshments & Exhibition		
1615	"On Your Bike" – the Glucose Cycle		Prof Michael Trenell
1645	Patient Narrative		John Grumitt
1930 2000	Pre Dinner Cocktails Conference Dinner Kursalon Johannesgasse 33 A-1010 Vienna		

Saturday 13 September 2013			
		Session Chairs	Anne-Marie Felton Kristin de Backer
0845	Welcome Address by EASD President		Prof Andrew Boulton
0900	Women Are an Issue in Diabetes Care		Prof Angus Forbes
0930	The Diabetes Epidemic: Provision of Diabetes Specialist Nurses in Service Delivery – a UK Perspective		Simon O'Neil
1000	Evaluation of Anti-VEGF Therapy for Macular Oedema Among Patients with Diabetes		Janeth Leksell
1030	An Educational Programme To Raise Awareness Of Diabetic Retinopathy (DR) And Diabetic Macular Oedema (DME) Amongst Nurses		Dr Michael Hall
1045	Refreshments & Exhibition		
		Session Chairs	Seyda Ozcan Deirdre Kyne Grzebalski
1115	Oral Presentations:	1. (see page 21) 2. (see page 22) 3. (see page 23)	Sandra Mulrennan Hanife Akman Karen Rytter
1145	The Artificial Pancreas: When Will We Close the Loop?		Dr Hans de Vries
1215	Patient Narrative		Robin Koops
1230	Preparing for Leadership: the Role of Young People		Sana Ajmal
1300	Lunch & Exhibition		
1415	Masterclasses: facilitators: Tineke Dijkstra & Sijda Groen 1. Diabetes Management in Patients with Chronic Kidney Disease		Dr Michiel Kerstens Winnie van El
parallel	2. Therapeutic Interventions in Diabetes Renal Dysfunction		Prof Stephan Bakker Mevrouw Lies Broekema
parallel	Guided Poster Tour 1 facilitators: Assoc Prof Seyda Ozcan & Dr Gillian Hood		
1500	Refreshments & Exhibition		
1530	Masterclasses (repeat): facilitators: Sijda Groen & Tineke Dijkstra 1. Diabetes Management in Patients with Chronic Kidney Disease		Dr Michiel Kerstens Winnie van El
	2. Therapeutic Interventions in Diabetes Renal Dysfunction		Prof Stephan Bakker Mevrouw Lies Broekema
	Guided Poster Tour 2 facilitators: Prof Regina Wredling & Prof Angus Forbes		
		Session Chairs	Marianne Lundberg Jacqueline Herbst
1615	Plenary Feedback from Masterclasses 1 & 2		
1645	The Sense of a Story: Integrating Patient Narrative in Diabetes Care		Dr Natalia Piana
1715	FEND Award Ceremony		Kristin de Backer Anne-Marie Felton
1720	Closing remarks		Kristin de Backer

OVERVIEW OF DIABETES EDUCATION IN AUSTRIA

Sarah Cvach

Vice-Chair VÖD, Austria

Austria counts 8.5 Mio inhabitants with approximately 600,000 persons with diabetes.

“Diabetes education has gained in Austria a critical role in diabetes care. The empowerment of patients aims to actively influence the course of the disease by self-monitoring and treatment modification. Diabetes education has to be made accessible for all patients with the disease. To be able to provide a structured and validated education program adequate personal as well as space, organisational and financial background are required”. This is the aim of ÖDG (*The Austrian Diabetes Association*). Since the early 90' ÖDG has organised intensive diabetes educational training courses for the qualification of diabetes counselling specialists.

In Austria diabetes counselling could be performed by nurse specialists, dieticians' specialists and physicians.

In 1997 VÖD (*Association of Austrian Diabetes Educators*) was established and since then has maintained and improved the quality of diabetes educational training seminars for HCP under the scientific leadership and academic expertise from ÖDG.

In the fall of 2014, this diabetes education course for HCP will be transformed into a University level Diabetes Care, based at the Medical University in Graz.

Our Vision

is the commitment to improve the quality of life, future prospects and the life expectancy of people with diabetes. We see our responsibilities in the medical-technical management and psychosocial care of people with diabetes. We support them in coping with physical, mental and social problems.

Our goal

is to reach out to all diabetes professional educators working in the field of diabetes care to support their interest, to organise continuous education for diabetes and to offer further medical technical and psychosocial training in the area of Diabetes. We are regularly organising further education and various areas either alone or within the frame work of the sessions of the Austrian Diabetes association.

Diabetes counselling in Austria

Type I structural diabetes patient education takes place mainly in hospital settings. Whereas Type II patients are educated either in hospitals or in ambulatory care settings (physicians' offices or outpatient clinics). Since 2007 a disease management program for Type 2 diabetes was established in cooperation with sick funds, chamber of doctors and VÖD to fund Diabetes training and care management for office based GP's. Diabetes educators are either employed in hospitals or are self-employed in primary care.

THE HEALTH AND LIFESTYLES OF YOUNG ADULTS WITH TYPE 1 DIABETES

Lurdes Serrabulho

Nursing and Training Coordinator at APDP Diabetes Portugal – Portuguese Diabetes Association

The social, occupational, familiar and emotional changes during emerging adulthood, can affect adherence to diabetes management tasks and quality of life of young adults with type I diabetes.

The objectives of this study consisted on the evaluation of behaviours and lifestyles, psychological adaptation and social support of young adults with type I diabetes.

This research included a quantitative study with questionnaires applied to 278 young adults with type I diabetes (aged between 18 and 35) and a qualitative study using focus groups, with the participation of 30 young adults with type I diabetes (18 – 34 years old).

In spite of the difficulties at this stage of life, most of young adults with type I diabetes showed good personal and social competences, social support and satisfaction with life, positive representations and good psychological adaptation to diabetes. Most of youngsters do not reveal symptoms of anxiety, stress and depression.

The youngsters showed satisfactory lifestyle and a reasonable adherence to diabetes treatment, however with a less optimal metabolic control of diabetes. A quarter of young adults referred having diabetes complications. Highest HbA1c levels were correlated to less global adherence to diabetes treatment, perception of health, satisfaction with life and psychological adaptation to diabetes.

Young adults highlighted the good social support from family, friends and multidisciplinary healthcare team and referred the benefits of group activities with peers, which help them to better deal with diabetes. The best representations and psychological adaptation to diabetes were positively correlated with better adherence to diabetes treatment.

KNOWING THE PATIENT: CRITICAL ROLE OF NURSE-PATIENT RELATIONSHIP

Chantal Montreuil

Policlinique Médicale Universitaire, Lausanne,
Institut de Recherche et Formation en Soins

Knowing the patient had been identified to be central in the nurses' practical discourses. But in the context of Diabetes Nursing, the increasing complexity of caring and patients needs, reduced hospital length of stay and the organisational constraints may negatively influence the process for "Knowing the patient". This situation could lead to a misalignment of patients expectations and the professional practice guided by a goal, a social obligation for the diabetic person to become autonomous. Through a constructivist perspective, we will reflect on the importance for a clear philosophical stance and its translation in the nurse-patient relationship.

MANAGING OLDER PEOPLE WITH T2 DIABETES: THE STORY OF THE IDF GUIDELINES

Prof Trish Dunning AM

Deakin University and Barwon Health, Geelong, Australia

Increasing age is a risk factor for diabetes and the global population is ageing. Caring for older people with diabetes is challenging and complex. Until recently care for older people was only accorded a small section in diabetes guidelines and did not address key care issues relevant to older people. The presentation provides a pictorial overview to highlight the key issues that need to be considered when planning care for/with older people with diabetes.

An overview of the process used to develop the IDF Global Guideline and an outline of the content will be included.

DIABETES EDUCATION: A SNAPSHOT FROM ACROSS THE WORLD

Dr David Chaney

International Diabetes Federation

Diabetes is primarily a self-managed condition in which tailored education forms the fundamental cornerstone of diabetes care. Despite this well-known fact only a limited number of countries around the world have managed to fully integrate diabetes education into routine diabetes care. The International Diabetes Federation is one of the leading organisations in the area of diabetes and has led a number of projects to enhance the education of both health care professionals and people with diabetes globally. These projects are wide and varied in nature recognising the differences in both culture and resources available around the world. The aim of this presentation is to offer those in

attendance the opportunity to familiarise themselves with the various projects instigated by IDF and to highlight how they may become involved or benefit from the work developed to date. The presentation will also address the many issues that need to be considered when instigating diabetes education within different regions of the world, with specific attention to the need to adapt material to the culture and context of the target population. In addition time will be allotted to examine future projects and the need to integrate new innovative ways to educate both healthcare professionals and people with diabetes. Encompassed within this will be the use of social media and IT systems as a growing entity within diabetes education across the globe.

This presentation will highlight the key features of monogenic diabetes and useful aids to differential diagnosis. Case studies will be used to illustrate how these patients were initially misdiagnosed, the clinical characteristics suggestive of monogenic diabetes, the genes involved and treatment changes as a result of genetic testing. Further information regarding monogenic diabetes and genetic testing can be found at www.diabetesgenes.org

PERSON-CENTRED CARE: A REALISTIC PARADIGM IN HEALTHCARE

Dr Eva Boström

Department of nursing, Umeå University, Sweden

The focus of the presentation is the professional role of diabetes specialist nurses in primary healthcare, and their experiences of practicing person-centred care.

Diabetes specialist nurses (DSNs) have an important role in supporting patients with type 2 diabetes in their self-management in everyday life. Person-centred care (PCC) is recommended in the DSNs work but despite efforts, many persons with type 2 diabetes are not reaching the treatment targets.

The DSN have a complex and multifaceted professional role. The role entails powerful positions such as striving to be an expert, a fosterer, a leader, an executive, and a role model. This can be challenging, due to high expectations both from patients, colleagues, other professionals and from the DSNs themselves. Observations of the interaction between DSN and persons with type 2 diabetes showed that the interaction included empowerment but also authority struggles. After participating in a person-centred intervention, the DSNs expressed that person-centred care was described as enriching, but they also expressed ambivalence practicing PCC, related to an altered professional role.

There is a desire by DSNs to be close to persons with type 2 diabetes, although they have several challenges to fulfil, which makes it difficult to uphold a relation with proximity; thus, distance is also present. Even though PCC is recommended and is a realistic paradigm in healthcare, and despite DSNs' efforts to practise PCC, it also implies an altered professional role for DSNs that has to be addressed.

HIGHLIGHTS OF THE POLICY PUZZLE 4TH EDITION “THE STATE OF DIABETES IN EUROPE”

Anne-Marie Felton
President FEND

The Policy Puzzle is a collaboration between EURADIA, FEND, PCDE and IDF Europe. This survey is a follow up to the 3rd edition and key findings will be presented. The survey addresses the status of diabetes care, education and research provision throughout Europe. The full report will be published in November 2014 and distributed to all Ministries of Health in Europe. The report will also be published on the respective websites of the European Coalition in Diabetes (ECD).

DIABETES - POST BARIATRIC SURGERY

Dr Sofie Ahlin
Sahlgrenska Academy, University of Gothenburg, Sweden

Her research focuses on the adipose tissue as an endocrine organ, its effects on metabolic disease and the effects of bariatric surgery on diabetes and cardiovascular disease.

THE POLITICS OF DIABETES

Adrian Sanders MP
President of the Global Diabetes Parliamentary Network

The Melbourne Declaration on Diabetes, signed by Parliamentarians from 50 countries in December 2013 set up the first global network of parliamentarians for a specific medical condition that will create a platform to raise the profile of diabetes within governments across the world.

Through the communication of ideas and best practice and the encouragement of action within parliaments around the world we can move towards that tipping point where the allocation of resources and effort to prevent, diagnose and treat diabetes is no longer questioned.

The urgency required cannot be over-stated given the rising tide of diabetes across all continents and countries rich and poor. Already the scale of the challenge threatens the health care budgets of many countries and the economies of some.

In human as well as financial terms, the burden of diabetes is enormous, provoking 5.1 million deaths and taking up some USD 548 billion dollars in health spending (11% of the total spent world-wide) in 2013.

The priority of the group in its early years will be to build a coalition of advocates for action to tackle the pandemic at local, regional, national and trans-national level with the focus on raising the matter in parliaments and assemblies across the globe to spread better understanding and awareness of diabetes and the urgency with which it needs to be addressed.

WOMEN ARE AN ISSUE IN DIABETES CARE

Prof Angus Forbes
King's college London

THE DIABETES EPIDEMIC: PROVISION OF DIABETES SPECIALIST NURSES IN SERVICE DELIVERY – A UK PERSPECTIVE

Simon O'Neil
Diabetes UK

The diabetes epidemic shows no signs of decreasing. In the UK 7.5% of the population, 3.8 million people, have diabetes, with nearly 300,000 newly diagnosed cases each year. A similar picture of rising prevalence is found worldwide.

Although medical intervention is key for many of these people, evidence shows that Diabetes Specialist Nurses (DSNs) are central to good patient care and outcomes, including confident self-care management. Evidence also shows that DSNs are cost effective and reduce length of stay in hospital. Not surprisingly the role of the DSN has also evolved with the rising numbers of people with diabetes, with patient education often being a key focus.

And yet the numbers of DSNs in the UK is stagnant or falling. Roles are being downgraded and some DSNs are being made to work on general wards where their expertise is not put to good use. We are also seeing more inexperienced and less qualified nurses being recruited into these roles.

But is there anything that can be done? In the UK Diabetes UK, the largest charity for people living with diabetes and the health care professionals who care for them, has joined forces with the Royal College of Nursing and TREND-UK (a group representing DSNs) to push for change. We have developed competencies for all nurses working in diabetes and are calling for minimum staffing levels.

In this talk, I hope to highlight some of the issues and potential solutions to ensure that DSNs are there in the vanguard of diabetes service delivery.

EVALUATION OF ANTI-VEGF THERAPY FOR MACULAR OEDEMA AMONG PATIENTS WITH DIABETES

Janeth Leksell

University of Uppsala and University of Dalarna

Diabetic retinopathy is a sight-threatening eye complication of both type 1 and type 2 diabetes. Insufficient metabolic control is the primary risk for development of diabetic retinopathy. Sight-threatening swelling of the macula, diabetic macular oedema, can be treated with the anti-VEGF drug Lucentis®.

The purpose of this project is to study the medical effect of the treatment and also its impact on patients' self-reported health and quality of life when treated with Lucentis® for sight-threatening diabetic macular oedema. The patients get the treatment through injection of the drug into the eye vitreous body. The drug reduces the oedema and improves vision. To maintain the effect, repeated injections are needed. Data collection occurs before treatment start, after three injections and one year after start of treatment. Medical data, data on use of resources as well as self-reported quality of life and vision related health are collected using the previously validated SF-36 and NEI VFQ-25 questionnaires. A smaller group of patients are also interviewed using a structured interview format. Patients at the eye clinics in two cities (Västerås and Falun) Sweden are asked to participate in the project.

The overall objective of this project is to improve the knowledge about patients' expectations and concerns for the injection treatment to give adequate information at treatment start and learn more about how patients' quality of life is affected by this demanding treatment.

Research group:

Therese Granström, RN, PhD-student

Elisabet Granstam, MD, Ass Prof.

Henrietta Forsman, RN, PhD

Janeth Leksell, RN, Ass Prof.

AN EDUCATIONAL PROGRAMME TO RAISE AWARENESS OF DIABETIC RETINOPATHY (DR) AND DIABETIC MACULAR OEDEMA (DME) AMONGST NURSES

Dr Michael Hall

THE ARTIFICIAL PANCREAS: WHEN WILL WE CLOSE THE LOOP?

Dr Hans de Vries

Academic Medical Center at the University of Amsterdam

I will cover the recent advances in the development of an Artificial Pancreas, focusing on European efforts. These include the AP@home and PCDIAB consortia, funded under the Framework Program 7 of the European Commission.

The roadmap to towards products on the market and the hurdles to overcome will be described.

PREPARING FOR LEADERSHIP: THE ROLE OF YOUNG PEOPLE

Sana Ajmal

President-Elect of the IDF Young Leaders in Diabetes (YLD)

Young people are the future of any nation. As Thomas Mann said, "the destiny of man expresses itself in political terms", young people are well suited to shape the political destiny of diabetes. Having young leaders at the forefront of the war against diabetes can give a whole new dimension, and meaning to the efforts of organisations and individuals working to eliminate diabetes and its ill-effects.

The Young Leaders in Diabetes, which is a programme of the International Diabetes Federation, was created as example of change being driven by the youth. The programme aims to bring about real change through the efforts of young, fresh minds.

The role of young leaders is manifested at many forefronts of diabetes. Specially trained for diabetes advocacy, the young leaders have engaged with health care professionals and governments to shape healthcare policies. Young leaders have also been working for awareness, peer support and for the rights of people with diabetes internationally.

The discussion on young leadership aims to spotlight the following through examples:

1. Why is it important to involve young people in leadership for diabetes?
2. What opportunities are available for young people to influence healthcare policies?
3. What strengths and weaknesses do young people pose as leaders for change?
4. How can an integrated approach be adapted for fully empowering young people to effectively fight against diabetes?

THE SENSE OF A STORY: INTEGRATING PATIENT NARRATIVES IN DIABETES CARE

Dr Natalia Piana

President-Elect of the IDF Young Leaders in Diabetes (YLD)

The introduction of the narrative-autobiographical approach in Therapeutic Patient Education accompanied an evolution in the way of thinking about education and care of people with chronic diseases.

The dominant scientific paradigm of knowledge (quantitative approach), based on exhaustive knowledge and rational control of reality, is then integrated by a new paradigm (qualitative approach) that enables us to interpret complexity in its non-rational aspects, such as uncertainty, chance, affectivity and relativity.

In this perspective, therapeutic education is not only a way to transfer knowledge and technique, but becomes a process through which patients can gain awareness of their own story, revealing themselves their needs and feelings related with their condition. According to Rita Charon ⁽¹⁾, “in all of medical practice the narrating of the patient’s story is a therapeutically central act, because to find the words to contain the disorder and its attendant worries gives shape to and control over the chaos of illness”.

To be effective as carers, health professionals (HP) should consider the subjective aspects and meanings of a disease, as well as its organic features.

In this perspective, the person’s experience and story become important tools that allow HP to better understand their patients’ disease and to formulate more appropriate diagnostic and treatment options.

Medicine practiced with narrative competence, called narrative medicine, “is proposed as a model for humane and effective medical practice”⁽¹⁾.

⁽¹⁾ R. Charon, *Narrative Medicine: A Model for Empathy, Reflection, Profession, and Trust*, JAMA, 2001

Sophie Ahlin

Sofie Ahlin, MD. PhD at the Sahlgrenska Academy at the University of Gothenburg, Sweden.

Dr Ahlin received her PhD at the Department of Molecular and Clinical Medicine at the University of Gothenburg in 2013. Her research focuses on the adipose tissue as an endocrine organ, its effects on metabolic disease and the effects of bariatric surgery on diabetes and cardiovascular disease.

Sana Ajmal

Sana has been living with Type 1 diabetes for the last 15 years. She is currently the President-Elect of the Young Leaders in Diabetes (YLD), which is a programme of the International Diabetes Federation. She served as the Vice-President of the YLD from 2011-2013. She was invited at the World Diabetes Congress 2013, to speak about barriers that are faced by people with diabetes in low and middle income countries.

Though Sana’s professional background is engineering, she is also a certified peer educator for diabetes, trained by the IDF Centre of Education in Pakistan.

Sana believes that effective diabetes care is a multidimensional, multi-stakeholder partnership. The future of diabetes care needs to be shaped by strong leaders at the forefront of the struggle against diabetes.

Jean-Philippe Assal

Prof. Jean-Philippe Assal, former chief, Division of Therapeutic Education for Chronic Diseases, University Hospital, Geneva. Honorary Member of the EASD. President of the Foundation for Research and Training in Patient Education, Geneva. This Foundation holds regular workshops for healthcare providers where emphasis is placed on coping with the burden of chronicity by creative approaches through theatre, painting and writing. He created the ‘Theatre of Lived

Experience’ together with Marcos Malavia, and 80 such sessions, where 400 participants could be on the stage, were made in Switzerland, France, Italy, Guadeloupe, Bolivia and Madagascar. In the field of painting the Foundation has created 74 painting workshops with 235 participants.

Eva Boström

Since 1990, I worked as a registered nurse at a thorax surgery ward, and as a tutor for nurse students doing their clinical practice.

Thereafter, continuing education and worked as a primary healthcare nurse within school healthcare. In 2009, I began as an adjunct, educating nurse students. Then I came in contact with the project Diabetes Intervention in Västerbotten, part 2 (DIVA 2), and after four years research I defended my dissertation in autumn 2013, “Proximity and distance- Challenges in person-centred care for diabetes specialist nurses in primary healthcare”. Since December 2013, I am working as a lecturer at the Department of nursing, Umeå University.

Andrew JM Boulton

Prof Boulton MB, BS (Hons), MD, DSc (hon), FACP, FICP, FRCP is a graduate of Newcastle-upon-Tyne and subsequently trained in Sheffield, and Miami prior to accepting an appointment at Manchester University. He has authored more than 450 peer-reviewed manuscripts and book chapters, mainly on diabetic lower limb and renal complications.

Among his many awards, he has received the ADA’s Roger Pecoraro Lectureship, the EASD Camillo Golgi prize and was the first recipient of the international award on diabetic foot research. He was the 2008 winner of the ADA’s Harold Rifkin award for distinguished international service in diabetes. Most recently he received the 2012 Georgetown distinguished achievement award in diabetic limb salvage.

He is a previous editor of Diabetic Medicine and is currently an associate editor of Diabetes Care.

He was the founding Chairman of the Diabetic Foot Study Group and was previously Chairman of Postgraduate Education and then Hon. Secretary/ programme chair for the EASD. He is currently President of the EASD.

Lies Broekema

I work as a dialysis nurse at the UMCG. I am part of a team that treats acute and chronic kidney patients using renal replacing therapy. Some patients receive intermittent dialysis at our department, others are treated daily at the intensive care unit. Patients are entitled to receive patient education by the WGBO law of 1986. As this is my focus area, in the year 2000 I was actively involved in setting up the pre-dialysis department.

At the pre-dialysis department, a multidisciplinary team consisting of a nephrologist, a nurse, a diabetes nurse practitioner, a dietitian, and a social worker assist patients in making treatment decisions that put quality of life first. [...] of the 150 patients in this department are +/- 50 diabetic. The STERK program, about which I will tell you more later on, started as a research project, and is meant for nephrology patients with early-stage kidney damage. Diabetes is also common in this group of patients.

Project leader STERK UMCG

David Chaney

Dr David Chaney is employed as Senior Education Specialist by the International Diabetes Federation. Dr Chaney began his career in diabetes care in 1994. In 2002 he moved to a University post and was awarded RCN Research Nurse of the Year in 2012. He has completed a number of academic qualifications including a PhD and Post Graduate Diploma in Education. His PhD

focused on the development of a structured diabetes education programme for young people with Type 1 diabetes. Dr Chaney has been involved in many review boards at local and national level and is current Chair of the Diabetes UK professional conference organising committee.

Alexandra Costa

Alexandra Costa, Bachelor and Master Degree in Educational Sciences, was diagnosed with type 1 diabetes in 1995. Alexandra began to engage in the area of diabetes by participating in summer camps. She is one of the founders and the coordinator of the APDP's Youth Group.

Since 2005 she has been invited to participate in lectures, courses, seminars, forums and conferences nationally and internationally, making its contribution as a person with diabetes and as an educator.

Last year Alexandra was selected to join the team of IDF Europe for four months within the IDF Europe Staff Exchange Program.

Alexandra is a Young Leader in Diabetes, from IDF programme. She is also the Western European region's manager.

Sarah Cvach

Sarah had her education as registered nurse in California. She graduated in 1979 and held positions as Charge Nurse and Intensive care nurse in at Long Beach memorial. After her move to Austria she was employed in the 1st Medical University Clinic, ICU as Intensive care nurse.

Since 1987 she works for the department of Endocrinology and Nephrology of the City Hospital Hietzing. Her duties includes diabetes Care and counselling for all types of diabetic patient and she acts as a Clinical trials coordinator. Sarah is Diabetes counsellor and Conversation Map expert trainer.

Sarah is currently Vice chair of VÖD and holds membership of FEND, EASD, IDF and the Austrian Diabetes association (ÖDG) and ÖGKV.

Trisha Dunning

Professor Trisha Dunning is the Chair in Nursing and Director of The Centre for Nursing and Allied Health Research at Deakin University and Barwon health in Geelong Australia.

She is also a credentialed diabetes educator.

Professor Dunning is active on many national and international committees: at present she is a Vice President of the International Diabetes Federation and a member of the Board of Diabetes Australia-Victoria.

Professor Dunning is a member of the editorial board and review panels of many journals and reviews an average of 70 papers per year for these journals. She is currently the Editor-in-Chief of the Global Journal of Health Science.

Professor Dunning is widely published in books, book chapters and journals and writes a regular column in Diabetes Conquest responding to reader's letters and a regular column in The Australian Diabetes Educator on Complementary and Alternative Therapies (CAM). She also writes short stories and poetry in her spare time, many of which are published.

She is the recipient of many awards: most notably she was made a Member of the Order of Australian in the 2004 Australia Day Honours List for her contribution to nursing and diabetes and was included in the Victorian Honour Roll of Women on International Women's day this year.

Winnie van El

Winnie van El is a nurse practitioner in the department of Endocrinology (University Medical Center Groningen, The Netherlands). She has developed special expertise in diabetes management for patients with advanced kidney disease and after kidney transplantation. She likes to initiate and optimize patient centered integral and cross functional care models. Examples are diabetic

foot care for patients with severe kidney disease; the Dialysis Document Diabetes (Best Practice Recommendations for diabetes management in the dialysis unit) and diabetes care for patients after all types of transplantation in the newly set up Transplantation Center in Groningen.

Anne-Marie Felton

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

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

Anne has a special interest in political health advocacy for people with diabetes, diabetes care and research internationally.

Angus Forbes

Professor Forbes holds the FEND Chair of Diabetes Nursing. He is based at King's College London and has held an honorary post as a specialist diabetes nurse at King's College Hospital since 2003. 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); the relationship between cognitive impairment and diabetic retinopathy; supporting patients in insulin intensification; evaluating a telecare intervention to support weight loss in type 2 diabetes; and diabetes prevention in women with GDM.

Angus has also led the diabetes work for the South London HIEC and is the NHS Diabetes London regional champion for older people with 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.

John Grumitt

John is Vice President of the International Diabetes Federation and Diabetes UK where he was a trustee and vice chair from 2003-2012. In 2013 John was appointed to the NHS England Commissioning Board Diabetes Clinical Reference Group and is a regular contributor to innovation and policy reviews. He is managing director of award winning advisors, Metapath (www.metapathsolutions.com), enabling commissioners and providers achieve better outcomes with less resource. John also chairs Ithaca and Platform Health, whose health data interoperability standard was recently approved by the UNs ITU.

Michael Hall

Michael is a General Practitioner. Honorary member FEND. Previous Chair of Diabetes UK and Board member of IDF Europe. Special interests: prevention of diabetic retinopathy, development of National Diabetes Plans, monitoring and promoting improved diabetes services within the European Union. Current co-chair, with Anne-Marie Felton, of the 4th Edition Policy Puzzle Steering Group. Has lectured and published on diabetes related topics, especially care issues, patient education, and doctor and nurse training

Michiel N. Kerstens

Michiel N. Kerstens, MD, PhD, is a staff member of the department of Endocrinology at the University Medical Center Groningen, The Netherlands. He has a broad interest in the field of Endocrinology, with special expertise in the diabetes management of hospitalized patients, adrenal gland disorders and Turner syndrome. His research activities predominantly involve diabetes mellitus and adrenal gland diseases and he is the coordinating principal investigator of several multicenter studies.

Robin Koops

Robin Koops, 47 years old, was educated as a Mechanical Engineer. After his study he started working for international operating companies and developed equipment for food technology and industrial pumping systems. After 10 years he started his own company and specialised in developing food and pharmaceutical (research) equipment for industrial partners like DSM, AVEBE, AHOLD etc. Being a type 1 diabetic patient himself, he started to develop a bi-hormonal artificial pancreas in 2004. It was tested in clinical trials in cooperation with the AMC in Amsterdam.

Janeth Leksell

Janeth Leksell is an Associate Professor of Caring Sciences at the University of Uppsala and University of Dalarna. She received her Doctorate in Diabetes Caring Sciences from Uppsala University. Her recent publications include experience of living with insulin pump (Diabetic Medicine, 2013) and an ongoing interventions study "A multicentre randomized controlled trial of an empowerment-inspired intervention for adolescents starting continuous subcutaneous insulin infusion - a study protocol" (BMC Pediatrics, 2013). Her research interests include patient centred diabetes care especially among those who developed diabetes related late complications, such as visual impairment. She is currently involved in a study called: Evaluation of anti-VEGF treatment among patients with diabetic macular oedema.

Chantal Montreuil

Chantal Montreuil MSc. Inf. completed a Master Degree and Doctoral Courses, both in Nursing Science at the University of Montreal, Canada. She is working in the field of Diabetes for 20 years.

She is actually a Lecturer at the University of Lausanne (Nursing Institute for Education and Research) and Project Manager for "Implementation of a systematic follow-up for patients at high risk for diabetic foot ulcer coordinated by clinical nurse Specialist" in the context of The Diabetes Programme in Canton de Vaud, Lausanne, Switzerland.

Simon O'Neill

Simon O'Neill qualified from St Thomas' Hospital, London as a registered nurse in 1989 and specialised in paediatrics at Guy's Hospital, London in 1991. Following several years working in both general and renal paediatrics, he moved to Diabetes UK in 1995 as a nurse care adviser.

Nineteen years later he is still there, although now as Director of Health Intelligence and

Professional Liaison. As Director he is responsible for ensuring Diabetes UK produces accurate and up to date information and advice on all aspects of diabetes care, based on the latest evidence. Working closely with healthcare professional colleagues, he also advises on the charity's policies and positions. He has had Type 1 diabetes for 22 years.

Natalia Piana

Natalia Piana PhD, expert in Narrative Medicine for people affected by chronic diseases and in the training of Health Care Professionals in Therapeutic Patient Education. Since 2010 I have worked as a Pedagogist at Healthy Lifestyle Institute C.U.R.I.A.M.O., University of Perugia, Italy, running groups of patients with obesity and type 2 diabetes to facilitate healthy lifestyle changes. Since 2003 I have been involved in planning and managing educational events for people with type 1 diabetes and their family members and in the training of health care professionals in therapeutic patient education.

Adrian Sanders

Adrian Sanders was born Paignton, Devon and was first elected to Parliament to represent the Torbay constituency in 1997. He has successfully defended his seat three times since.

In 1990 Adrian was diagnosed with Type 1 diabetes and has campaigned strongly for issues surrounding the condition ever since.

Adrian has chaired the UK All Party Parliamentary Diabetes Group since 1998 and has helped establish an embryonic collaborative network of MPs from Parliaments across the world. In December 2013 he was elected the first President of the Global Diabetes Parliamentary Network.

His political interests include, animal welfare, transport and health care. His personal interests include, soccer, travel and music.

Lurdes Serrabulho

Lurdes Serrabulho, RN, specialised in Public Health, works at the Portuguese Diabetes Association for 22 years. She is Nursing and Training Coordinator and has experience in diabetes consultations, group education sessions, and training courses 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 Master Degree in Educational Sciences. She is now studying for PhD in Educational Sciences with a research about "The Health and Lifestyles of Young Adults with Type 1 Diabetes".

She is a member of FEND Executive Committee.

Mike Trenell

Mike is a National Institute for Health Research Senior Fellow, Director of MoveLab, and Deputy Director of the RCUK Centre for Ageing and Vitality at Newcastle University. He has a specialist interest in how lifestyle influences lifelong health and wellbeing and chronic disease, particularly diabetes, cardiovascular disease, dementia and stroke.

Currently he leads programmes of research exploring what causes chronic disease and how lifestyle influences these. These more basic studies are accompanied by large translational programmes developing novel service pathways which deliver evidence based, scalable and reproducible lifestyle care pathways for people with chronic disease.

Mike has a specialist interest in eHealth and mHealth solutions and have worked with several industrial and academic partners in the development of mobile solutions for health in the US and Europe

J Hans DeVries

J. Hans DeVries obtained board licenses in Internal Medicine and Endocrinology at the VU University Medical Centre, Amsterdam. His PhD thesis was entitled 'Subcutaneous and Intraperitoneal Insulin Delivery in Type 1 Diabetes'. In 2003 he accepted his current position as lecturer and consultant in Internal Medicine and Endocrinology at the Academic Medical Center at the University of Amsterdam. As Principal Investigator, and together with his PhD students, he actively publishes in the field of clinical diabetes with now some 150 publications in PubMed. He is a frequently invited speaker at international diabetes meetings, an editorial board member of Current Diabetes Reviews and the Journal of Diabetes Science and Technology, and International Associate Editor of Diabetes Technology & Therapeutics. Among his research interests are insulin and glp-1 therapies, continuous glucose monitoring, the artificial pancreas, glucose variability and glycaemia in hospitalized patients. He is scientific coordinator of AP@home and PCDIAB, consortia attempting to close the loop, funded under the Framework Program 7 of the European Commission.

1

DOES AN INTEGRATED CLINICAL-RESEARCH TEAM SUPPORT THE DELIVERY OF RESEARCH AND DEVELOPMENT OF NURSING CAREERS?

Lake A., Mulrennan S., Acknowledge Cope D. Mr.

Cambridge University Hospital Foundation Trust, Cambridge, United Kingdom.

Background: This project uses an alternative method within an established NHS service to promote research. This supports the achievement of national targets and facilitates the delivery of high quality commercial and academic research in the UK.

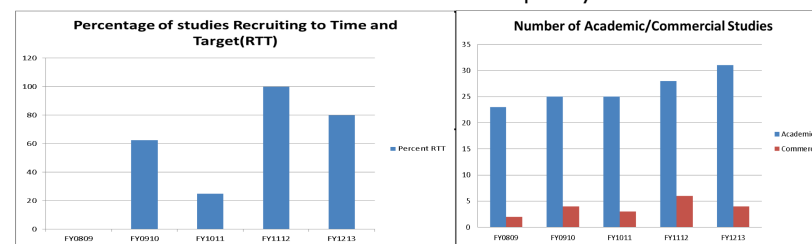
The rationale for this project is to improve the patients' exposure, experience and access to research, facilitate the development of knowledge and skills within research, and provides nursing career and academic opportunities.

Within Europe this method of working is not unheard of; however remains uncommon.

Aim: Our aim is to share the experience and knowledge gained and highlight that it is possible to further enhance nursing careers, increase the profile of research and help towards meeting European, national and local targets by crossing these mostly separate roles.

Method: The Clinical management team supported two junior diabetes specialist nurses (DSN) to work one day a week each, dedicated to research delivery. This sparked an interest in the senior members of the DSN team, whom later embraced this model of working within their revised job plans. Staff received relevant exposure to research specific training. We have introduced a lead research nurse who works 50% of her time as a DSN to support clinical staff involvement with delivering research, and enabling research to happen.

Result: This project has gone beyond simply having a dual skilled people delivering trials; we also have integrated clinical service-research management and governance meetings and patient pathway reviews for research, all of which resulted in improved performance within the clinical service. This model has also been adopted by other Allied HCP.



Conclusion By adopting an integrated approach to research, we have not only delivered a high standard of research but we have also managed to improve on nursing skills, knowledge and job satisfaction, increase the portfolio of research offered, better support the needs of our academic colleagues and industry and ensure patients have the access to research they are entitled to. Support from the senior clinical and research teams were essential to the development of this initiative.

2

QUALITATIVE RESEARCH ABOUT PROBLEMS OF PATIENTS WITH DIABETES / THEIR LIFE EXPERIENCES AND THEIR EXPECTATIONS ABOUT DIABETES MANAGEMENT

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Background: A person with diabetes should have sufficient information, skills and positive attitudes in order to realize daily diabetes self-management effectively.

Aim: It is the determination of problems of persons with diabetes / their life experiences and their expectations on diabetes management.

Method: During the qualitative study, implemented between January – April 2014; data were collected via interview form and close interviewing methods, and 15 persons with diabetes, who accepted to participate to the study among 94 persons with diabetes who had individual diabetes training and participated at least once to the diabetes communication maps group training, were included to the study. No subjective and non-guiding questions were asked, and replies, received via one on one interview technique, were recorded. Interviews, which took at least 20 minutes, were recorded by an audio recorder and written texts of the data were issued within 24 hours. The persons with diabetes were informed about the study and their written consents were obtained. Figures and averages were used for demographical features. During analysis of the qualitative data, content analysis method was employed.

Result: Feelings Of Patients For Initial Diagnosis: It is seen that when patients had heard about the initial diagnosis, they were shocked, sad, and felt anxiety and refusal as well as quilt as they were not careful enough and did not take measures.

Daily life experiences with diabetes: It is seen that routine applications, such as healthy nutritional habits, exercises and regular sugar measurements, were their most difficult issues during transition to the new life style.

Diabetes management and impacts of education: It is seen that persons, who got diabetes education, have more persuasion of being diabetes a chronic disease and it can be kept under control. Besides, they also mentioned that they perceive their disease as a chronic disease and had more control on progress and treatment on diabetes after taking diabetes education.

Institution preference for diabetes management: Importance of diabetes team and expectations; it is seen that most of the patients with diabetes apply to the institution upon recommendation, and their expectations were highly fulfilled, and they always recommend the services, rendered by the institution.

Conclusion: Starting to educate persons about diabetes when they were initially diagnosed is helpful for the persons to overcome with diabetes. Maintaining continual education and support is more efficient for continuance of self managements of persons.

3

NURSING CARE FOR VULNERABLE PATIENTS WITH DIABETES AND FOOT COMPLICATIONS

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Background

People with diabetic foot complications are often characterised by increased comorbidity. They are often males, socially marginalised, isolated, and have a relatively low educational level and socioeconomic status. This contributes further to their vulnerable position and they often drop out of regular diabetes control.

To support better self-care and to optimise treatment, the role of the Diabetes Nurse Specialist (DNS) was strengthened in the multidisciplinary team in the foot clinic.

Aim

To investigate the effect of dialogue sessions between DNS and patients with diabetes and poor metabolic regulation and foot complications, on metabolic control and well-being in relation to diabetes.

Method

A prospective, descriptive study with follow-up after one year. During nine months, sessions were given when patients arrived for treatment in the foot clinic (typically 6-9 times). Topics covered in the sessions were monitored and included, e.g., self-monitoring guidance, medication and individual psycho-social support. Psychosocial issues were monitored with two validated psychometric scales: PAID and WHO-5. HbA1c was measured before and after the intervention, with follow-up after one year.

Results

Forty-nine patients were included aged 56 ± 22 years, male 69.3%, HbA1c 88 (75-125) mmol/mol, type I diabetes 55%, disease duration 25.1 (2-67) years, multiple complication 85.4%. HbA1c 77.9 (40-135) mmol/mol after intervention, HbA1c 79.7 (53-114) mmol/mol one year after which is a significant change. Forty-three patients answered baseline PAID and WHO-5. 37.2% had a PAID sum-score > 33 indicating serious diabetes related problems. 34.8% had a WHO-5 score < 50 indicating poor well-being and 18.6% < 20 indicating depression. High PAID score correlated with low WHO-5 score. At the end of intervention and one year after there was significant change in PAID but not in WHO-5 scores. DNS supported areas were especially on medication and dialogue about life with diabetes and foot complication.

Conclusion: This study shows that individual DNS support given to patients when they are present in the foot clinic makes it possible to improve and sustain HbA1c and diabetes related problems in this vulnerable group, although the effort does not seem to change well-being.

4

PROMOTION OF KNOWLEDGE BY USE OF PERIODIC CONTINUOUS GLUCOSE MONITORING

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Steno Diabetes Center, Gentofte, Denmark

Background

Use of continuous glucose monitoring (CGM) may lower HbA1c in patients with type 1 diabetes (T1D), but it is also a costly treatment. Although studies indicate that periodic CGM lack this effect on metabolic control it may be an important tool to promote knowledge about current or suitable insulin regime, taking into account food, exercise and normal daily life.

Aim

The aim of this study was to investigate the benefit of periodic CGM in patients with T1D referred to an outpatient day hospital because of problems with hypoglycaemia and/or fluctuating blood glucose.

Method

A retrospective, descriptive study with data collected in the electronic patient record and CGM register for a period of one year (2013). A systematic record audit for finding outcome in the form of a treatment plan which was followed by the patient was made by a diabetes nurse. The blinded CGM sensor Ipro was used for diagnostic purposes, and the Guardian sensor when testing the usefulness of alarms. All CGM analysis and the treatment plan were conducted by a multidisciplinary team including a diabetes nurse, a dietician and a senior physician together with the patient. HbA1c was measured when starting the course and three months later.

Result

58 patients with T1D aged $48,6 \pm 30$ years, male 55%, HbA1c 62(33-114) mmol/mol, disease duration 24(1-59) years, 20 patients with complication (34,4%). Executing 71 courses were identified (11 patients had two, one patient had three CGM periods). 64 courses (90%) were considered successfully completed, and 62 treatment plans were made. Treatment plans included e.g. carbohydrate counting, adjustment of the insulin regime, physical activity, or change to treatment e.g. insulin pump. The identified problem was solved by the suggested multidisciplinary team suggestion for 26 patients (44%) but there was no change in HbA1c.

Conclusion

This study confirms that use of periodic CGM does not change HbA1c. Meanwhile, 44% resolved their problem as an outcome of the treatment plan made on the basis of periodic CGM. It is an educational challenge to improve the outcome of periodic CGM.

5

THE ASSESSMENT OF THE PROPER INSULIN INJECTION WITH THE AUTOMATIC INJECTION SYSTEM, GENSUPEN IN TYPE 2 DIABETES PATIENTS WITH DISABILITY MAKING TREATMENT DIFFICULT AS A FACTOR IMPROVING DIABETES CONTROL

Alicja Szewczyk^{1,2}, Renata Koczan^{1,2}, Anna Ignaczak^{2,3}, Małgorzata Masierek⁴
Jerzy M. Loba³

¹ The Children's Memorial Health Institute Department Endocrinology and Diabetology, Warsaw, Poland

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⁴ BIOTON S.A., Warsaw, Poland

Background: Insulin pen devices are used by patients with diabetes for insulin administration. Patients' knowledge and skills of insulin administration have direct impact on glycemic control, patient satisfaction and quality of life.

Aim: To assess GensuPen automatic injection system in type 2 diabetes patients with disability making treatment difficult and impact of intensive education on proper insulin injection

Material and methods: It was 12 week multicenter, observational study in type 2 diabetes patients (n=7000) living in Poland. Patients aged >18 years, treated with insulin. The total population and following cohorts were evaluated: Group I – patients using high doses of insulin (<30 IU/day), Group II –with BMI>30, Group III –with manual problems, Group IV –with vision impairment, Group V –with uncontrolled diabetes (HbA1c>9.0%), Group VI – with uncomplicated diabetes.

Results: 6,453 patients completed the study (53,46% women) Mean age – 64.43 ± 15.21 years. (69,97% of patients >60 year old, 7,68% >80 year old). 48,63% of patients use correction glasses, moderate vision impairment was observed in 32,16% and severe vision impairment was observed in 23,62%. Dexterity of the hand supporting the pen device was assessed as good by 72,57%, sufficient by 24,62%, insufficient by 2,81%. Inserting the insulin cartridge, selecting the insulin dose, releasing the insulin dose discarding the needle and safe storage of the insulin device were the most troublesome for the Group III. About 30% of patients were not fully satisfied with the previously used pen. They complained about pen slipping out of their hands (19,88%) and illegible signaling the insulin dose injected (33,48%). 98,09% of patients using GensuPen never observed pen slipping out of hands and 96,09% of participants evaluated the signaling of the insulin dose injected as visible.

Conclusions: Type 2 diabetes patients with disability making treatment difficult require longer education and appropriately selected pen devices which wouldn't slip out of hands and would have visible signaling of injection. The nurse should conduct systematic re-educations, not only about insulin injection technics but also for proper use of insulin injection devices at each visit in the Diabetes Clinic.

6

IMPROVING CARE TO ELDERLY WITH DIABETES

Rebola A, Barradas M (Diet), Correia I, Costa AR (Diet), Narciso L (Diet), Nunes H, Oliveira S, Paiva AC, Serrabulho L, Zacarias L, Raposo JF, APDP – Diabetes Portugal, Lisbon, Portugal.

Background

At rest homes the auxiliaries are the closest people to elderly. Therefore, our Association and other Institutions developed a common project aiming care improvement to elderly with diabetes. The 4-hour program (20 participants each), guided by nurses and dieticians with active methodologies is focused on nutrition, physical activity, insulin therapy, glycemic control, hypoglycemia and foot care.

Aim

To give specific diabetes training to the institutions' auxiliaries

Method

At the beginning of each session, a questionnaire is given to participants (sample: 576), requiring their age, academic qualifications, expectations and experiences. After the session, they fulfill a questionnaire about their satisfaction with the training.

We intended to have data on the impact of training in the auxiliaries' professional life after 3 months but have been impossible to collect.

Results

576 participants, 97% female with average age of 23 years old and several professions: direct care auxiliaries:78%; social workers:7%; institution coordinators:5%; cooks:4%, etc.

All the participants wanted to improve knowledge and skills about diabetes, to better care of elderly, also ensuring the information transmission information to colleagues. Most referred difficulties: regarding nutrition (21%); insulin therapy (20%); hypoglycemia (18%); foot care (16%); glycemic control (13%) and physical education (12%).

Course's global evaluation was considered very good and good (60%+19%). The duration was considered very good or good (59%), audiovisual resources were classified as very good and good (45%+27%). They considered that the course improved their personal skills and competences mainly: nutrition, insulin therapy, foot care, hypoglycemia and hyperglycemia and glycemic control. The participants seemed to be very motivated and participative in the sessions, positively evaluating the interaction between trainers and trainees -very good and good (75%), and the clarity of themes' discussion during the sessions (very good and good 51%+22%).

Conclusion

This project can be an important tool to improve the skills of professionals working in rest homes, dealing with elderly with diabetes and improving their care.

7

APPLICATION OF PERSONAL HYGIENE RULES ON TYPE 2 DIABETES MELLITUS PATIENTS AT AN OPEN CARE CENTER FOR THE ELDERLY

Grozou A., Katopodi A., Koutsovasilis A., Vergidi P., Papazafiropoulou A., Sotiropoulos A., Paspala D., Nikolintai P., Tamvakos E., Bousboulas S.

3rd Internal Medicine Department & Diabetes Center, General Hospital of Nikaia, Athens, Greece

Background

It is well known that Diabetes Mellitus (DM) is correlated with bad dental hygiene and with dental disease. It is also known that DM is one of the major causes of lower limb amputations. Both conditions are affecting significantly patients' quality of life and are preventable by applying simple daily personal hygiene rules.

Aim

The aim of this study is the evaluation of the personal hygiene rules by older age type 2 DM (T2DM) patients.

Methods

142 T2DM patients (60 males and 82 females) of third and fourth age attending a public day care facility during a period of 12 months were eligible in the study.

Results

The patients' mean age was 78.4 years and diabetes duration was 11.7 years. 3.8% of the patients reported having dentures and 21.6% reported halitosis problem. 84.2% flushes the denture after each meal and 56.9% places the denture in water during the night. Regarding the frequency of washing gum the rates were: 1 time 41.9%, 2 times 22.9%, 3 times 25.7%. Regarding the frequency of visits to the dentist the rates were: every six months 7.9%, every year 8.6%, every 2 years 4.3% and every 3 years 2.9%. 74.7% of study participants had foot bath once a week and 18.1% three times a week. From these people 31.15% used tepid water in footbath and 6.1% hot water. The 18.2% study participants treated nails every week, 36.5% every 15 days and 32.4% every month. Only 5.6% of study participants used talcum powder during foot care while 32.9% used moisturizer cream.

Conclusion

According to the results of the present study older age T2DM patients are presenting satisfactory compliance regarding foot care awareness while dental care is inadequate. Therefore more intensive efforts from health care practitioners are required for older age T2DM in order to achieve better personal hygiene.

9

THE EFFECT OF HEALTH PRACTITIONERS COUNCELING ON VACCINATION COMPLIANCE OF TYPE 2 DIABETES MELLITUS PATIENTS

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3rd Internal Medicine Department & Diabetes Center, General Hospital of Nikaia, Athens, Greece

Background

Various studies have reported that vaccination of patients with diabetes against influenza has been effective in reducing the hospital admissions during influenza epidemics while other studies show that the pneumococcal vaccine is also effective in reducing the burden of invasive pneumococcal disease.

Aim

The aim of this study was to estimate the vaccination rate in Greek diabetes patients along with the compliance after health practitioners counseling and its influence on morbidity, hospitalisation, duration and outcome of hospitalisation.

Methods

508 type 2 diabetes mellitus (T2DM) patients were eligible in this study. All patients answered a questionnaire about vaccination between October and December and two months after appropriate counsel on immunization. All respiratory infections and consequent hospital admissions were recorded by telephone interviews two months after the end of the vaccination period.

Results

52% had received the influenza vaccine while 39.4% had received the pneumococcal vaccine and 23.6% had received both vaccines. After the appropriate immunisation counsel, 10.2% complied for influenza and 5.5% for pneumococcal vaccination. Patients who received the influenza vaccine were older (67.66 ± 11.49 vs 61.09 ± 13.27 , $p=0.004$), with longer diabetes duration (14.67 ± 7.72 vs 10.92 ± 6.78 , $p=0.006$) and hypertension ($p=0.044$), more than two comorbidities ($p=0.036$), coronary artery disease ($p=0.030$) and by-pass ($p=0.033$). Patients who received the pneumococcal vaccine were older ($p=0.021$), with longer diabetes duration ($p=0.012$), coronary artery disease ($p=0.022$) and by-pass ($p=0.026$). The probabilities of respiratory infection were notably higher in the absence of influenza vaccination ($p=0.001$) and pneumococcal vaccination ($p=0.001$). The duration of hospitalisation was longer in patients without any vaccination ($p<0.0001$) while the presence of complications or death during hospitalisation was correlated with the absence of any vaccination ($p<0.0001$).

Conclusion

Older patients with coronary artery disease and more co-morbidities exhibit higher compliance with vaccination programme. Diabetes patients without any vaccination present higher morbidity and more hospital admissions.

10

THE ASSESSMENT OF THE LEVEL OF KNOWLEDGE OF THE PARENTS OF CHILDREN AND YOUNG ADULTS WITH TYPE 1 DIABETES AND THE DETERMINATION OF THE FACTORS AFFECTING IT

Anna Stefanowicz, PhD^{1,3}, Associate Prof. Elżbieta Adamkiewicz-Drożyńska, MD, PhD², Prof. Małgorzata Myśliwiec, MD, PhD³

¹ Pediatric Nursing Workshop, Department of General Nursing, Chair of Nursing, Subfaculty of Nursing, Faculty of Health Sciences with Subfaculty of Nursing and Institute of Maritime and Tropical Medicine, Medical University of Gdańsk, Poland

² Chair & Clinics of Paediatrics, Haemathology and Oncology, Faculty of Medicine, Medical University of Gdańsk, Poland

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Background: The appropriate and professional patient education is the basis of effective treatment of patients with type I diabetes. It is an essential part of the treatment, conditioning the success of all other therapeutic methods.

Aim: The aim of the work was to assess the level of knowledge of the parents of children and young adults with type I diabetes and to determine the factors affecting it.

Materials and methods

A survey was conducted in 227 patients with type I diabetes between the ages of 5 to 20 years suffering from it for at least three years. Among the respondents there were 104 (45.8%) men and 123 (54.2%) women.

The level of knowledge was set based on the test which contained 18 test questions concerning type I diabetes.

Results

The study included 144 (63.4%) patients living in the city, and 83 (36.6%) in rural areas. The mean duration of the illness was 6.6 ± 3.1 years, while the average number of correct answers in a test of knowledge was 14 ± 2.6 . The parents of children and young adults with type I diabetes who have higher education, live in urban areas and work actively, exhibit significantly higher levels of knowledge ($p = 0.0017$, $p = 0.049$, $p = 0.022$ respectively). It has been shown that the parents of children and young adults treated with the use of a personal insulin pump, compared to those treated with an insulin pen, and using a kitchen scale have a higher level of knowledge ($p = 0.003$, $p = 0.006$ respectively).

Conclusions

1. Continuous and proper education is the basis of effective treatment.
2. The mother's higher education, living in the city, active professional work of the parents, the therapy with the use of a personal insulin pump, and the use of a kitchen scale significantly affect the level of knowledge about the disease in parents of children and young adults with type I diabetes.

11

REGIONAL PREVENTIVE ACTIONS – SYNERGY OF INTERGENERATIONAL SUPPORT.

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Background

Type 2 diabetes and other noncommunicable diseases are a growing public health challenge globally. In case of diabetes primary prevention is essential which should cover the broadest group of people.

Aim

The aim of the study was to estimate the frequency of appearing the diabetes among participants of local preventative actions, test the basic knowledge of diabetes and “breaking down the barriers of white coat”.

Method

The study was conducted as a part of preventative action from 02.2012 to 04.2014. The knowledge of the participants in the field of diabetes was verified by copyright anonymous questionnaire. Ensured consultations with experts in various fields - has become a symbol of Preventive Tree. As part of the provided tests: blood glucose, cholesterol, ECG, blood pressure, Doppler ultrasound of the lower limbs, spirometry, breast ultrasound, BMI. Diabetes educators taught first aid at hypoglycemia. For children – Clinic Teddy Bear – “breaking down the barriers of white coat”. The regional TV periodically appeared educational material .

Result

1.400 people took part in the study. The mean age was 46 years, BMI 26. 68% of patients required further consultation of laboratory results with specialists. Of the risk of diabetes (38%) 15% of people had abnormal fasting blood glucose. 58% of people did not know the standard fasting glucose levels. Clinic Teddy Bear has become a place of active participation of children and their parents, grandparents.

Conclusion

All sectors, each have a critical role in primary prevention and by working in partnership, ought to create the necessary synergies essential for making substantial forays in the prevention of diabetes. It should be emphasize the role of self-government in health care for people. The most important aspects of family medicine - training of nurses in health care. Intergenerational support in care and education, „shared care”.

12

ROLE OF DIABETES NURSE IN EDUCATIONAL TRAINING OF PATIENTS WITH DIABETES.

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The main aim of this work is to theoretically prove diabetes nurse role in patients with diabetes mellitus, training through H. Peplau psychodynamic model based on cognitive theory.

Method

A literature search conducted in accordance with the selected keywords: patients with diabetes mellitus, cognitive learning theory, diabetes nurse, patient education, learning, H. Peplau psychodynamic model, in electronic research databases. Articles of Lithuanian language analysed of peer-reviewed publications. Total examined 20 different literature sources.

Conclusion

Patients and their families' education play an important role of the discipline of nursing, and this is one of the biggest challenges facing today's nurses. These nurses, who provide educational services to patients and their families, help to maintain health and cope with acute and chronic health problems. Patients, who suffer from chronic diseases, might be encouraged to maintain self-care and independence by this education. In nursing practise models can be used in order to find out measures of the nursing, to define nursing care planning and criteria, which is needed to assess the results of nursing.

H. Peplau nursing model of interpersonal relations was selected to check nurses in diabetes working with patients and their training. The author presents a model of six nursing roles (functions) that occur in various nurse-patient relationship stages: advisor, manager, deputy stranger, versed and the teacher. H. Peplau identifies the teacher's role as the roles of synthesis combined.

Nursing helps a person to meet the needs using education system. Nursing educational system is applied when the patient is fully able to meet your needs, and nurse activities directed to the patient and his relatives, family training. Diagnosis of diabetes mellitus, this system is most applicable nurses in diabetes work with patients, who need insulin to land, measuring blood sugar level. And the nurse teaches the patient and his relatives to do it correctly.

B. Bloom's (1956) taxonomy of cognitive levels: knowledge, comprehension, application, analysis, evaluation. Formulation of practical results can be applied to diabetes nurse working with patients with diabetes mellitus.

13

CLINICAL CHARACTERISTICS OF CHILDREN AND ADOLESCENTS WITH NEWLY DIAGNOSED TYPE 1 DIABETES MELLITUS IN CROATIA BETWEEN 2010 AND 2013

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Background

Several studies confirmed different patterns of incidence rates and distribution of diabetic ketoacidosis (DKA) in newly diagnosed patients with diabetes mellitus type 1 (DM1) regarding age and gender, seasonality and related clinical factors.

Aim

To determine association between incidence of DKA, age at diagnosis, gender, level of autoantibodies, residual beta-cell function and glycemic control in children and adolescents with newly diagnosed DM1 during last 4 years.

Methods

Medical records of 117 patients (68 male, 49 female) with newly diagnosed DM1 treated at Department of Pediatrics, University Hospital Center Zagreb, Croatia during the period 2010-2013 were reviewed for the following data: presence of DKA at diagnosis (pH<7.3, HCO₃<15), age at diagnosis, gender, levels of ICA, GAD and IA-2 autoantibodies, HbA1c and C-peptide levels.

Results

Mean age at diagnosis was 7.83 (range 1-16) years (0-6 years 37.61%; 7-11 years 38.46%; 12-16 years 23.93%). DKA at diagnosis was present in 71/117 (60.7%) patients and was significantly more common in female patients ($\chi^2=5.7$, $p<0.02$). Older children (12-16 years) were more prone to development of DKA, but the difference was not statistically significant. No correlation was found between DKA and levels of HbA1c or autoantibodies. Mean HbA1c at diagnosis was 11.65 ± 1.88 . No significant difference was found in HbA1c according to gender, C-peptide and autoantibodies levels, but significant correlation with age was found. Older patients presented with somewhat higher levels of HbA1c ($r=0.244$, $p<0.01$) at diagnosis. No significant difference in DM1 or DKA occurrence was found according to the season of the year.

Conclusion

The proportion of DM1 patients presenting with DKA is still very high. DKA was more common in female patients and among children in puberty during the recent years. Increasing the awareness of DM1 symptoms among public and general practitioners who care for older children may lead to earlier diagnosis and reduction in occurrence of DKA at presentation of DM1.

14

EARLY INSULIN TREATMENT PROVIDES FAST GLYCEMIC CONTROL AND RETURN TO ORAL ANTIDIABETICS WITH PROPER PATIENT EDUCATION AND CLOSE E-NURSING FOLLOW-UP.

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Background

Early establishment of normoglycemia provides improvement of beta cells from glucotoxicity and diabetes nurse will have a major role in success of early insulin treatment (EIT) regimens. Here we would like to present our experience of three EIT patients and their follow-up with return back to pills with better glycemic control.

Method

We included 4 newly diagnosed type 2 diabetic patients with HbA1c more than 9%, duration of hyperglycemia symptoms less than 3 months, body mass index (BMI) more than 30 kg/m² and with family history of diabetes. We started mixed analog insulin with 0.3-0.6 units/kg doses and metformin 3x850 mg/day. We followed daily glucose measurements (six times a day) via email or phone conversations. According to decrease of insulin need and HbA1c, after 1-3 months we stopped insulin and turned to oral antidiabetics.

Results

The values of patients and control HbA1c results are presented in Table I below.

Conclusion

EIT could be a choice of treatment in specific group of patients and provides return to oral antidiabetics in type 2 diabetics with proper diabetes education and close follow-up.

Table I

	Age	Gender	Weight	BMI	Family story of diabetes	Symptom duration	Starting HbA1c	Starting insulin dose (U/kg)	Control HbA1c
Case 1	55	M	67	26	+	2 months	10.68	0.59	5.91
Case 2	47	M	84	27	+	3 months	10.54	0.35	6.5
Case 3	31	M	102	37	+	2 months	10.1	0.23	7.0
Case 4	46	M	75	27	+	1 month	9.2	0.34	6.4

15

SOCIAL ISOLATION AMONG TYPE 2 DIABETICS TREATED WITH INSULIN

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Background

Management of chronic conditions includes management of psychological and physiological problems as well as the management of social problems.

AIM: To determine the social isolation experienced by type 2 diabetics treated with insulin.

Method

At this qualitative phenomenological descriptive study performed between 20.04.2014 and 30.04.2014, the data were collected through semi-structured interview forms and in-depth interview technique. The study was constituted with 21 Type- 2 diabetic patients over 18 years and treated with insulin were formed maximum diversity sampling method. The interviews were recorded through a voice recorder and the data were transcribed within 24 hours. The patients were informed about the research and their written consent was obtained. Descriptive analysis method was utilised in analysis of the data.

Results

Percentages, numbers and averaged were used for such characteristics as age, gender, educational level, marital status, occupation, economic condition, HbA1c levels and duration of treatment, etc.

Patients' expressions imply their emotional experiences and concerns about the future and consequences and constraints of condition.

"I wouldn't want to be diabetic because diabetes doesn't kill but gets disabled. Being disabled is my nightmare"(Member 6).

"I said to the doctor, I will die because I can't use insulin. It's scary to inject myself. Some of them were leg amputated. I cannot live if I am so."(Member 1)

Some of case expressed that treated with insulin get themselves away Being a insulin dependent diabetic insulin uses them away from social life and changes their body image.

"I can't do any housework; I am not motivated to do anything. I got a lot of weight; I don't even want to dress up. I don't want to go to a wedding."(Member 11)

"I cannot have a snack and inject insulin myself within community. That's why I don't want to go somewhere" (Member 20)

Conclusion

We conclude that to consider patients with type 2 diabetes treated with insulin as a subject of social isolation may improve patient compliance and prevent depression and poor self-esteem as potentially consequence of social isolation.

16

THE INFLUENCE OF GROUP EDUCATION ON METABOLIC PARAMETERS IN TYPE 2 DIABETES PATIENTS

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Background

The positive influence of group training has been studied in type 1 diabetes patients who bear specific features.

Aim

The aim of this study is the investigation of the possible correlation of group training with the improvement of metabolic parameters in type 2 diabetes patients (T2DM).

Methods

60 T2DM patients were eligible in this study. Patients were divided in three groups of 20 patients each. Group A followed a structured programme of psychoeducation and psychotherapy. Group B followed a psychoeducation programme while there was no psychological intervention in Group C (control group). All patients attended a programme of 6-15 weekly meetings lasting three hours and a last follow-up meeting three months after the intervention. Glycemic parameters were recorded (HbA1c) while all patients filled questionnaires for the evaluation of life quality, satisfaction with diabetes treatment, anxiety, depression, illness perception, barriers to diabetes self-care and diabetes family behaviour.

Results

Study's patients were 49.15±4.32 years of age. There was no statistically significant difference between the three groups regarding age (p=0.09), body mass index (p=0.27), diabetes duration (p=0.58), treatment (p=0.34) and HbA1c (p=0.29). After the intervention there was a significant improvement in HbA1c for Group A (p<0.0001) and Group B (p=0.008) and maintenance of the improvement for Group A (p=0.010) three months after the end of the intervention. There was also a statistically significant improvement in body mass index for Group A (p=0.043).

Conclusion

Group therapy (programme of psychoeducation and psychotherapy or psychoeducation alone) has a positive influence on glycemic control and on body mass index of T2DM patients. This positive effect is preserved after the end of the intervention for all metabolic parameters.

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CORRELATION OF GROUP EDUCATION WITH PSYCHOSOCIAL PARAMETERS IN TYPE 2 DIABETES PATIENTS.

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Background

Diabetes self-management education can be delivered in many forms. Group based training is widespread due to being a cheaper method and the added advantages of having patient meet and discuss with each other.

Aim

The aim of this study is the investigation of the possible correlation of group training with the improvement psychosocial parameters in type 2 diabetes patients (T2DM).

Methods

60 T2DM patients were eligible in this study. Patients were divided in three groups of 20 patients each. Group A followed a structured programme of psychoeducation and psychotherapy. Group B followed a psychoeducation programme while there was no psychological intervention in Group C (control group). All patients attended a programme of 6-15 weekly meetings lasting three hours and a last follow-up meeting three months after the intervention. Glycemic parameters were recorded (HbA1c) while all patients filled questionnaires for the evaluation of life quality, satisfaction with diabetes treatment, anxiety, depression, illness perception, barriers to diabetes self-care and diabetes family behaviour.

Results

Study's patients were 49,15±4,32 years of age. There was no statistically significant difference between the three groups regarding age ($p=0.09$), body mass index ($p=0.27$), diabetes duration ($p=0.58$), treatment ($p=0.34$) and HbA1c ($p=0.29$). There was an improvement in quality of life after the intervention for Group B ($p=0.008$), diabetes self-care for Group A ($p=0.006$) and Group B ($p=0.016$), and disease cohesion for Group A during intervention and three months after that ($p=0.011$ and $p=0.017$ respectively).

Conclusion

Group therapy (programme of psychoeducation and psychotherapy or psychoeducation alone) has a positive influence on many psychosocial parameters. This positive effect is preserved after the end of the intervention for all psychosocial parameters.

18

THE DIABETES MYQUEST CONSULTATION TOOL® STUDY

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Background

The consultation between nurses and patients is an important aspect of managing diabetes which can improve clinical outcomes. It can also be a frustrating experience due to limited time, training, and unidentified patient emotional problems. The Diabetes MyQuest Consultation Tool® is a collaboration between nurses and patients to provide a meaningful guide to consultations through a patient questionnaire. The questionnaire combines clinical information, self-care statements and approved psychological scales so that patients' needs can be more readily recognised and addressed.

Aims

The aims of this pilot study were to provide a supportive, structured, and time-efficient tool for patients and nurses to use to optimise diabetes self-care, and identify any mental health problems.

Methods

This pilot study was a mix methods randomised control trial involving patients with type 2 diabetes with no current mental health problems. Patients were randomised to routine consultations (control) or to use the MyQuest Consultation Tool® in their diabetes appointment (intervention). Patients were given pre and post measures of diabetes knowledge (DK), consultation satisfaction (PNIF), and empowerment (DES) and interviewed.

Results

120 patients (40-90 years; $m=67$ years) were consented into the study. Of these 106 patients (66 male; 40 female; average diabetes duration 8.7 years) completed all study visits. There were significant changes for the whole sample between pre and post study measures of DK (.0001*), PNIF (.0004*) and DES (.0010*). 34% of participants scored below the clinical cut-off score on the WHO-5 Wellbeing Index indicating a need for clinical intervention. Qualitative results demonstrated a strong preference for using this tool, highlighting its empowering structure and guidance.

Conclusion

This pilot demonstrates: high acceptability of the Diabetes MyQuest Consultation Tool®; positive changes in diabetes knowledge, satisfaction and empowerment; identification of unknown mental health problems; but only slight changes in HbA1c, BMI and Cholesterol. A longer term study is now needed to test whether MyQuest could also improve clinical measures in addition to providing welcomed structure for the consultation. With T2D remaining at epidemic proportions MyQuest may be an efficient, realistic and cost effective strategy for managing diabetes in primary care.

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ROUTINE SCREENING FOR DEPRESSION AND DIABETES RELATED PROBLEMS IN YOUNG ADULTS WITH DIABETES

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Background

Diabetes patients are 1.5-2 times more likely to report depressive symptoms compared with subjects without diabetes. Young adults (18-23 years) may be particularly vulnerable for developing depressive symptoms.

Aim

To gain insight into health status (HS), depressive symptoms (DS), and diabetes-related problems (DRProblems) among young adults with diabetes.

Method

A cross-sectional study in 119 patients aged 18-23 years. Patients completed the following questionnaires: the PAID (DRProblems), the CES-D (DS) and the EQ-5D (HS). Paired t tests were used for within group analysis. A two-sided P-value < 0.05 was considered significant.

Result

Mean (\pm SD) age was 19.8 ± 1.4 years. Patients were treated with oral medication (3.6%) or insulin (86.4%). Mean HbA1c of the year before transition and 1-2 years after transition was respectively $9.2 \pm 1.3\%$ (73 ± 19 mmol/mol) and $9.3 \pm 1.3\%$ (75 ± 19 mmol/mol) $P=0.02$. Thirty-six percent had experienced one or more severe hypoglycemic events in the past year. Twenty-one percent reported co-morbidity, such as celiac disease, rheumatoid arthritis, neuropathy, and retinopathy. With the CES-D 19.3% reported DS, with the EQ5D dimension 'anxiety and/or depression' this applied for 21%. Furthermore, 21% reported having pain, and problems with carrying out their activities. Results of the CES-D, PAID and EQ5D are shown in the table. Remarkably, 16% had an extremely low PAID score ≤ 10 with an HbA1c $>8.5\%$ (69 mmol/mol). Forty percent (M26% F54%) had been treated by a psychologist or psychotherapist. Of the patients with DS or DRProblems (scores above clinical cut-off scores) 42% agreed with a referral to a psychologist or to a diabetes rehabilitation program.

Conclusion

Few young adults had high scores on DRProblems. The percentage of young adults with DS was comparable to the adult diabetes population. Considering their age, a high percentage of the patients reported pain, and problems when carrying out their activities, probably due to the 21% reporting to have at least one chronic condition besides diabetes. These results emphasize the importance of early screening on depression but also on pain and daily activities. *(contd next page)*

Results of the CESD, PAID and EQ5D Questionnaires

	MALE (n=62)	FEMALE (n=57)
CESD, median (IQR)	7.0 (10.0)	8.0 (11.5)
CESD, (% ≥ 16)	17.7	21.1
PAID Diabetes-related emotional problems, median (IQR)	14.6 (21.9)	16.7 (25)
PAID Treatment-related problems, median (IQR)	0.0 (16.7)	8.3 (8.3)
PAID Food-related problems, median (IQR)	8.3 (16.7)	8.3 (25)
PAID Social support-related problems, median (IQR)	0.0 (12.5)	0.0 (6.2)
PAID 20-item scale, median (IQR)	10.0 (18.1)	13.7 (20.0)
PAID (% ≥ 40)	6.6	5.3
EQ5D Mobility (%)	4.8	8.8
EQ5D Self-care (%)	1.6	0.0
EQ5D Usual Activities (%)	24.2	17.5
EQ5D Pain / Discomfort (%)	20.9	21.1
EQ5D Anxiety / Depression (%)	21.0	21.1
EQ VAS, median (IQR)	78 (20)	75 (24)

Frequency of reported problems presented in median (IQR) percentages.

PAID: a cut-off score of 40 indicates a seriously elevated emotional distress.

A low score (0-10) combined with poor glycaemic control may be indicative for denial.

CES-D 20: a cutoff score of 16 is indicative of 'significant' or 'mild' depressive symptoms.

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COMPARING INSULIN INJECTION TECHNIQUES IN THE USA, CHINA AND THE NETHERLANDS

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Background

A correct subcutaneous injection technique is important for optimal glucose control. In the Netherlands, the diabetes nurse has a key role in the education of patients with diabetes mellitus.

Aim

It is assumed that injection technique instructions given by the diabetes nurse significantly improve the quality of the injection technique. In order to investigate this, we evaluated the injection technique among Dutch patients and compared this with the practice in countries where the diabetes nurse has a less prominent role in diabetes education, i.e. the USA and China.

Methods

We performed a subanalysis of an international cross-sectional survey in self-injecting adults with type 1 or type 2 diabetes living in the Netherlands, China or the USA. Information on injection technique was collected through questionnaires. The following topics were addressed: needle length, site rotation, disinfection before injection, needle reuse, injection through clothing, subcutaneous dwelling time of the needle, sharps disposal and injection site inspection by a health care professional. We evaluated to which extent the reported practice was in agreement with the 'New injection recommendations for patients with diabetes' (published in 2010) and compared the results between the three countries.

Results

A total of 1049 patients with diabetes were included. Education by a diabetes nurse or diabetes educator was provided to 70.6%, 54.4% and 23.8% of patients in the Netherlands, China and the USA, respectively ($P < 0.01$). More than 80% of the Dutch patients performed 5 of the 9 selected topics of insulin administration according to the guideline recommendations, whereas 2 of these 9 topics were performed appropriately by more than 80% of Chinese or American patients (Table).

Conclusion

Instructions by a diabetes nurse are likely to improve the quality of the insulin injection technique.

(contd next page)

Table 3 Frequency of adherence to injection recommendations

Topic	NL	USA	China	Recommendation
Needle length (<8 mm)	71.7†,§	20.6*	51.6	4, 5 or 6 mm
Structured site rotation	82.1‡,¶	94.5	94.4	Structured site rotation
No disinfection applied	93‡,¶	40.5*	8.2	Disinfection of the site is usually not required
No reuse pen needle	78.7¶	64.2*	10.7	Single-use pen needle
No injections through clothing	81.5†,¶	90.4	98.1	Injection through clothing is not recommended
Needle in the skin >5 sec	57.3‡	28.3*	49.3	Counting slowly to 10 or more
Disposal of needles in disposal container (or equivalent)	68¶	64*	20	Every country has own regulation. Never disposal into public rubbish system
Disposal of container at a proper disposal location	84.7‡,¶	36.2	26.5	Safe disposal of container at Health Care facility or provider
Site inspection ≥ once a year	81.8‡,¶	36.7	31.7	Annual check or at every visit with lipodystrophy

Data are presented in percentages.

† $P < 0.05$, The Netherlands vs. USA;

‡ $P < 0.01$, The Netherlands vs. USA;

§ $P < 0.05$, The Netherlands vs. China;

¶ $P < 0.01$ The Netherlands vs. China;

* $P < 0.01$ USA vs. China

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COMPARISON OF TWO DIFFERENT MODELS AT THE INITIAL MANAGEMENT OF CHILDREN WITH TYPE 1 DIABETES, ONE YEAR AFTER DIAGNOSIS - A RANDOMISED CONTROLLED TRIAL

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Background

There are various arguments and disagreements as to whether in-hospital care or home management of diabetes at diagnosis is most beneficial in the support of families and in their task of diabetes management and whether it is an equally safe way of caring for the child. Few studies provide high-quality evidence. In order to get closer towards the goals of diabetes management, evaluations of the consequences over time for the child, for the family, and for the healthcare system of different models of services of the initial care, needs to be carried out.

Aim

Therefore the aim was to compare two different regimens for children diagnosed with type 1 diabetes, hospital-based care and hospital-based home care (HBHC) in terms of the child's metabolic control, episodes of severe hypoglycaemia, the disease' impact on family and the parents' health-related quality of life, one year after diagnosis.

Methods

The study had a randomised controlled design and included 60 children, aged 3-15 years. Children were randomised to either continued hospital-based care or to HBHC. This article presents data one year after diagnosis.

Results

The results showed overall equivalence between groups. There were no differences in terms of the children's HbA1c ($p=0.804$), in episodes of severe hypoglycaemia ($p=1.0$), in insulin dose/kg/24h ($p=0.115$) or parents reported impact of the child's disease on the family ($p=0.163$). However, parents in the HBHC showed a significant higher social functioning compared to parents in the hospital-based care ($p=0.006$).

Conclusions

In conclusion, few studies provide high-quality evidence when comparing hospital-based care with different models of home-based care. The results of this study one year after diagnosis support the safety and feasibility of the HBHC when a child is diagnosed with type 1 diabetes.

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CHARACTERISTICS OF PATIENTS WITH LATENT AUTOIMMUNE DIABETES

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Background

Latent autoimmune diabetes in adults (LADA) can be classified as a more slowly progressing variation of type 1 diabetes, yet it is often misdiagnosed as type 2. It is assumed that 10% of people with diabetes have LADA, making it probably more widespread than type 1.

Aim

To determine the characteristics of patients with LADA and to identify possible differences in educational approach.

Method

Sixty patients hospitalized for regular annual check-up (66% female, 34% male; aged 56 yrs \pm 10, average diabetes duration 12 yrs, average LADA duration 2 yrs, HbA1c 7.8%) were assessed to determine the characteristics considering presence of other autoimmune diseases, the presence of complications with duration of diabetes mellitus type 2 (DM2), the duration of LADA and the duration of insulin therapy. ANOVA test (Analysis of Variance) was used to compare the obtained results with age groups and the difference between average duration of DM and insulin therapy, and the difference between average duration of DM and LADA. T-test was used to compare the difference between average duration of DM and LADA and patients with or without complications.

Results

The obtained results indicated that 78% of patients are diagnosed with neuropathy, 36% with retinopathy and 15% of patients are diagnosed with nephropathy. 68% of patients have not been diagnosed with any other autoimmune disease. The average difference in the duration of DM and LADA is 9.14 years and the average difference in the duration of DM and insulin therapy was 2.6 years. No differences were found between age groups and differences in the average duration of DM and LADA. Also, no statistically significant differences were found between age groups and the average duration of diabetes and insulin therapy. A statistically significant difference was determined by the difference between the average duration of DM and LADA and people with complications. Patients with complications have greater difference in the average duration of diabetes and LADA ($p<0.001$).

Conclusion

Late diagnosis of LADA in relation to the duration of diabetes and the duration of insulin therapy can have a higher percentage of developing complications. Patients with type 2 diabetes should be educated about the possibility of developing LADA, and the importance of self-monitoring of blood sugar.

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SCREENING FOR DIABETIC RETINOPATHY IN PORTUGUESE DIABETES ASSOCIATION (APDP) : AN OBSERVATIONAL STUDY

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Background

Retinopathy prevention through risk factors control and screening programs implementation allows a smaller loss of visual acuity, a decreased number of blindness cases and a decrease in health systems' expenditure.

Aim

To evaluate the design of retinopathy screening based on retinographies obtained by non-mydratic camera

Method

Through a protocol with National Healthcare Services between 2011 and 2013, 45821 adults with diabetes were selected by primary health care physicians and called for retinopathy screening.

Each person took four retinographies by a non-mydratic retinal camera, a total of 183 283 images. The retinographies were all performed by trained optometrists.

Data (database and images) were recorded in a computer and transferred to APDP, where two ophthalmologists analyzed and reported the retinographies. Registration obeyed to the recommendations of Regulatory Circular of General Health Directorate.

Results

Some types of retinopathy were diagnosed in 11153 eyes (24.3%). From these, 1730 (3.8%) had already been treated with laser photocoagulation and 805 (1.8%) had maculopathy.

The screened people were referenced to: ophthalmology consultation at APDP - 2291 (5%), hospital appointment in residence area - 3009 (6.6%) and to 40516 people (88.4%) was proposed to repeat the eye screening on the following year.

From the 2291 people referenced to the institution, 410 (17.9%) did cataracts surgeries, 15 (0.7%) were submitted to vitrectomy surgery, 99 (4.3%) did intravitreal injections and 407 were treated with laser photocoagulation.

Conclusion

Screening for diabetic retinopathy through retinography non-mydratic allowed diagnosing 11.6% of people with some degree of retinopathy, who needed further treatment and observation. 88.4% of the population did not have diabetes eye complications or they had mild degrees of retinopathy so this screening avoided early referral for ophthalmology consultation.

Based on the presented results we can conclude that this retinopathy screening program has been very useful to an appropriate people referral, to the complications' treatment and the optimisation of healthcare resources in the region.

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SUPPORTING PEOPLE WITH DIABETES BEFORE OPHTHALMOLOGICAL SURGERY

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Background

The concept of ambulatory surgery is aimed at providing care, highlighting education, self-care and family involvement.

The preoperative nursing consultation is an important element for the success of ambulatory surgery.

This is an autonomous activity performed by nurses, that promotes person's safety, giving the chance to explain their fears, feelings and emotions, also allowing to promote the discussion about the surgery outside the medical setting .

The preoperative nursing ophthalmology consultation began in January 2012 and is incorporated in ophthalmology institution department.

Aim

To present the preoperative nursing ophthalmology consultation.

Method

It is intended to describe the preoperative nursing ophthalmology consultation, through the description of the process and protocols used.

Results

The preoperative nursing ophthalmology consultation occurs daily in the ophthalmology department, ensured by nurses. It is performed after medical consultation and scheduling of surgery (if anesthesia is topical or local), or after the consultation of anesthesia (if this is regional or general) .

In 2012 there were held 702 preoperative nursing ophthalmology consultations (9.5% concurrently with anesthesiology consultation) and 959 during 2013 (7.9% concurrently with anesthesiology consultation). The multidisciplinary team of physicians and nurses from the consultation and from the surgery ophthalmology room has the perception that this consultation has been an added value for users and for better coordination between all the professionals involved.

Conclusion

The creation of new consultations and / or care activities should seek to meet unmet needs of patients and healthcare professionals. The multidisciplinary team involved in ophthalmology department considers that the establishment of preoperative nursing ophthalmology consultation has responded to these goals and has also the perception that this consultation has been an added value to users. In order to evaluate satisfaction with the consultation, we intend to conduct a study to understand the perceptions of persons undergoing preoperative nursing consultation and ambulatory surgery, as well as the assessment of health care professionals' perceptions.

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ABNORMAL SMALL NERVE FIBRE FUNCTION DEMONSTRATED BY THE LASER DOPPLER IMAGING (LDI) FLARE TECHNIQUE IN CHILDREN AND YOUNG PEOPLE WITH TYPE 1 DIABETES.

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Background

Screening tests have become very powerful tools in effecting early treatment interventions and importantly, when explained, can be used to motivate some young people to improve their diabetes control. Similarly, early detection of nerve dysfunction may also provide an incentive for improvements in diabetes control

Aim

To modify the LDI flare method for use in children and to use it to compare small fibre function in children with and without diabetes.

Methods

The modified LDI flare method involves stepwise heating of foot skin (45°C-2min, 46°C-2min, 47°C-30seconds (compared with 3min in adults) and 46°C-2min) to evoke the neurogenic flare and measuring its size with a Laser Doppler Imager (LDI). Young people aged 12-16yr in the following groups were studied- Healthy controls (HC) n=18, Type 1 diabetes n=26, 18 with and 8 without microvascular complications.

Results

The modified method for children correlated strongly with the adult method ($r = 0.84$, $p = <0.0005$)

Children with diabetes had significantly smaller LDIflares (5.88 ± 2.59 vs 9.25 ± 3.98 cm²; $p=0.002$). Due to small numbers there was no difference between the diabetes groups. LDIflares size inversely correlated with all measurements of HbA1c i.e. mean HbA1c in last 12 months, $\rho=-0.60$, $p=0.001$, mean HbA1c over total diabetes duration, $r=-0.51$, $p=0.008$ and most recent HbA1c, $r=-0.473$, $p=0.015$.

LDIflare size correlated with HbA1c % change over 2yrs- i.e. mean of all results for the previous year to the mean of all results for the most recent year, $\rho=-0.49$, ($p=0.015$).

The procedure was rated as tolerable and the majority of the children found the study interesting.

Conclusions

The LDIflare method is suitable for use in children and demonstrates reduced small nerve function in this group. Its relationship with HbA1c and HbA1c change at this early stage of diabetes suggest a degree of plasticity (reversibility). Of potential importance, children were engaged by the images suggesting that it could be a potential motivational tool to improve glycaemic control.

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TELEMEDICINE DIABETES CONSULTATIONS: RESULTS AND EXPERIENCES.

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Background

An increasing number of persons with diabetes (PWD), lack of medical specialists, and a long transport between the island Aeroe and the mainland poses a challenge for the health care system. Tele-consultations between PWD, a diabetes specialist nurse (DSN) and an endocrinologist at mainland could be a solution on the island of Aeroe.

Aim

To investigate if tele-consultations between PWD, a DSN and an endocrinologist are comparable to regular outpatient control and to explore PWD experiences.

Method

A retrospective study from 2005-2012 where 78 PWD were included. 23 persons type 1 diabetes and 56 persons type 2 diabetes. PWD included had at least 6 months of tele-consultations with a minimum of two visits and two hemoglobin A1c (HbA1c).

Tele-consultations were conducted with the PWD and DSN situated at Aeroe Hospital. If needed both could be in audiovisual contact with the endocrinologist situated at the hospital on the mainland. The consultations were twice a month and were supported by electronic patient records and a web based quality database.

Furthermore a descriptive analysis of the PWD experiences from 2005-2014.

Results

71 PWD fulfilled the inclusion criteria.

HbA1c decreased for both groups and no differences were seen in BMI, blood pressure or lipid values compared to the data from The 2011 Danish National Diabetes Registry (DVDD).

The PWD expressed great satisfaction due to reduced transport. Travel costs and absence from job were minimized.

Furthermore they felt more comfortable visiting the well-known hospital on their island.

Conclusion

Telemedical diabetes consultations are feasible on the island Aeroe and quantitative results improved or were similar in relation to the essential diabetes treatment parameters.

The telemedical setting is furthermore associated with improved cost-effectiveness and the PWD expressed their satisfaction with this telemedical solution.

The telemedical consultations, where a DSN is coming to the island Aeroe twice a month, are now permanent treatment.

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THE INVENTION OF INTELLIGENTIZED INSULIN PEN BOX

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Background

Insulin is the primary drug for the treatment of diabetes. The young patients with diabetes easily forgot to inject insulin because of work and study, and the elderly patients easily forgot to inject insulin because of memory loss. And some patients had forgotten injecting insulin and injected insulin once again, which may result in hypoglycaemia and glycemic fluctuation.

Aim

In order to solve the above problems, we produced an intelligentized insulin pen box.

Method

The intelligentized insulin pen box is composed of four parts: electronic touch screen, microprocessor, semiconductor thermostat, and sound-light reminder. Electronic touch screen can preset temperature and set sound-light reminder. Microprocessor sent the order to control semiconductor thermostat according to the temperature set by the electronic touch screen, and semiconductor can freeze or heat ordered by temperature controller to maintain the pen box temperature in the preset range. Insulin pen box can also send out sound and light to remind according to the time preset by the electronic touch screen.

Result

There are four advantages of the insulin pen box. First, the pen box is produced by the pressure proof rigid plastic material with a built-in 1cm thick sponge, which as roles of antiglare and buffer to prevent the pressure and shock. Second, the double insulin-pen-sized notches, in the central of the sponge of the box cover, are suitable for placing various types of insulin pens that are slightly different in the thickness, length and shape. Third, the injection time is set on the touch screen according to the requirements of the injection, the warning lights send out red light with the sound of "bit" to remind of injecting the insulin. Fourth, Insulin Pen box with a small semiconductor can maintain the temperature for the insulin store.

Conclusion

The intelligentized insulin pen box can be easily used for patients with diabetes to avoid forgetting injection or the repeated injection of insulin, and can store the insulin of the pen.

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TREATMENT SATISFACTION INFLUENCING ADHERENCE TO SELF-MONITORING BLOOD GLUCOSE IN PATIENTS WITH DIABETES

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Background: Measurement of glucose concentrations is important for good glycemic control in patients with diabetes treated with insulin. However, self-monitoring of blood glucose (SMBG) is still suboptimal.

Aim To assess how diabetes treatment satisfaction (DTS) influences adherence to SMBG.

Methods: In this observational, prospective, multicenter study in type 1 or type 2 diabetes patients treated with insulin, patient health-related outcomes and the Diabetes Treatment Satisfaction Questionnaire (DTSQ) were collected at the baseline visit. Patients were considered adherent if the minimum glucose measurements established by the Spanish Society of Diabetes (SED) were carried out. To assess DTS factors associated with adherence to SMBG, a logistic regression analysis was performed.

Results: 2.700 patients with diabetes aged 18 to 80 years were recruited, of whom 2.029 (75%) were considered valid for analysis. Most (81%) had an unsatisfactory glycemic control (baseline HbA1c ≥ 7%) and 54% were adherent to SMBG according to SED rules. Treatment satisfaction was high, with mean DTSQ total score of 25.8, and was associated with better adherence (OR: 1.02; IC95%: 1.00, 1.03). How test strips were obtained also related to adherence (OR Health centre vs. Pharmacy: 0.75; IC95%: 0.63, 0.90). Advanced age positively associated to adherence (OR ≥ 65 years vs. 18-44 years: 1.34; 95%IC: 1.06, 1.69) as did being retired (OR Retired vs. Active: 1.32; 95%IC: 1.07, 1.63). An association was found between a severe level of dependence and low adherence (OR Severe dependence vs. Independence: 0.19; IC95%: 0.04, 0.89). Concomitant treatments or diseases such as hypertension, dyslipidemia, retinopathy, nephropathy, coronary heart disease, cerebral or peripheral vascular disease, were not significantly related to adherence. Glycemic perception did not relate to adherence and was incorrect for most patients, 84% in adherent patients and 82% in non-adherent patients.

Conclusion: Adherence to SMBG is influenced by DTS related outcomes in patients with diabetes. While an age of over 65 years and being retired are associated with good adherence, severe dependence is associated with low adherence. A higher treatment satisfaction and obtaining the test strips from the pharmacy also associate with better adherence.

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REVERSAL OF DETERIOATING GLYCEMIC CONTROL AND PSYCHOSOCIAL FUNCTION AMONG YOUNG ADULT WOMEN WITH TYPE 1 DIABETES 18 MONTHS AFTER A FLEXIBLE NURSE-LED GUIDED SELF-DETERMINATION INTERVENTION: RESULTS OF A REAL-LIFE RANDOMIZED CONTROLLED TRIAL

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Background: Impaired glycemic control is often combined with psychosocial distress among young adults with type 1 diabetes leading to poor prognosis. This fact is especially true for young women. Randomised Controlled Trials (RCTs) focusing on young adults aged 18 to 35 years old have been lacking, although they could be crucial for identifying effective health-promoting and preventive interventions for this age group.

Aim: The aim of the study was to report results from an 18-month RCT testing the effectiveness of a flexible Guided Self-Determination (GSD) intervention on glycemic control and psychosocial functioning in young adults with poorly controlled type 1 diabetes.

Methods: From January 2010 to February 2012, we randomized 200 18- to 35-year-old patients (mean age 25.7 (5.1) years, 50% men) with type 1 diabetes for ≥ 1 year (mean duration 13.7 (6.8) years) and hemoglobin-A1c (HbA1c) ≥ 64 mmol/mol (8.0%) to an immediate GSD (intervention; n=134) or 18-months delayed GSD group (control; n=66). GSD promotes shared decision-making and mutual problem-solving by overcoming barriers to empowerment through drawing on patient reflection sheets and advanced professional communication. Group-based or individual GSD sessions were offered. The primary outcome was HbA1c (measured at baseline and every three months thereafter) and the secondary outcome was psychosocial functioning (self-reported at baseline and after nine and 18 months). Intention-to-treat analyses included linear regression and repeated measurement analyses.

Results: A borderline significant decrease in HbA1c in the intervention group compared with the control group (-4.1 vs. -1.2 mmol/mol, p=0.073) was driven by a significantly greater reduction in the GSD women (-5.2 vs. +0.7, p=0.017); parallel decreases were observed in the GSD and control men (-3.1 vs. -3.2, p=0.955). Significantly greater improvements in the GSD group's psychosocial functioning were again driven by improvements in the GSD vs. the control women. The men's improvements were not connected with the intervention.

Conclusions: The flexible GSD-intervention breaks an unfortunate development in glycemic control and psychosocial functioning among young adult women without influencing a fortunate development among men.

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DIALOGUE MEETINGS FOR PERSONS WITH TYPE 1 DIABETES – AN OPPORTUNITY FOR SHARING PROFESSIONAL AND EXPERIENTIAL KNOWLEDGE

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Background

Diabetes self-management is an on-going process that requires continuing education and support.

Aim

The aim of the study was to evaluate three "Dialogue Meetings" (DMs) for persons with type 1 diabetes (PWD). The purpose was to provide support by disseminating knowledge about diabetes by a health care provider and experiential knowledge by a PWD with a possibility to share experiences in small groups afterwards. We also wanted to explore the characteristics of the participants and their benefit from participating.

Methods

We invited PWD who had previously participated in a support group (n=54) and one hundred randomly chosen from our clinic. An open invitation was available at our home page and in the out-patient clinic. The participants filled in Problem Areas in Diabetes (PAID) and Perceived Competence in Diabetes (PCD) when attending their first DM and again after 12 months. They stated their benefit from participating in one sentence in response to an open-ended question and filled in an evaluation form rating their benefit from 1-5 with 5 indicating the greatest benefit. Information on duration, age and HbA1c was retrieved from our electronic database.

Results

Overall 115 PWD (75% female) signed up for at least one of meeting. Mean age was 50 years (range 21-76), mean duration 22.4 years (range 0-64). At baseline mean HbA1c was 62 mmol/mol (\pm SD 11); the mean sum-score was 30.2 (\pm SD 5.4) for PCD and 30 (\pm SD 17.9) for PAID respectively. 38% of the respondents had a PAID score >33 .

At 12 months PAID was reduced to 27.94 (\pm SD 17; p=0.099), and PCD was unchanged at 30.2 (\pm SD 5.3). Half of the participants (51%) attended one meeting, 28% attended two meetings and 11% attended all three meetings. Overall the benefit from participating was rated high with a median score of 4. The qualitative evaluation indicated that the major benefit was the possibility to meet and share experiences with peers.

Conclusions

DMs are feasible and highly acceptable by PWD. The major benefit of participating was the opportunity to share experiences with peers. Diabetes related distress was reduced after 12 months but not significantly.

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NURSES' AWARENESS OF THE IMPORTANCE OF COMPETENCIES IN THE FIELD OF DIABETES IN JAPAN

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Background

The researchers verified the validity and reliability of the evaluation index for competency of diabetes care nurses to develop a diabetes nursing education program in Japan (Seto et al., 2014). Because nurses suffer various restrictions in their workplace as well as their own competencies, their self-evaluation of their own competencies, and their awareness of the importance of these competencies, do not necessarily coincide.

Aim

The aim of this study was to compare nurses' awareness of the importance of competencies, with the mean scores of a previously conducted self-evaluation of competencies in order to elucidate the problems related to nurse training in the field of diabetes.

Methods

Questionnaires were distributed to a total of 1,952 nurses working in hospital wards with the highest number of patients admitted primarily for diabetes treatment. The nurses used a 3-point scale (low, moderate, high) to evaluate the perceived importance of 99 competencies identified by a panel of experts. The mean scores for these 99 competencies were calculated.

Results

Valid responses were obtained from 1,056 nurses. The mean age was 32.73 years (SD: 8.78), the mean number of years of experience was 10.13 years (SD: 8.27), the mean number of years of experience in the field of diabetes nursing was 4.61 years (SD: 4.22). Items with the highest mean score in order from highest to lowest were "I am able to provide the appropriate treatment when the patient is hypoglycaemic or sick" (2.81; SD 0.41), "I provide assistance to patients with complications in accordance with their condition", "I provide ongoing support to patients to improve their condition" (2.78; SD 0.44), "I provide assistance so that patients can learn safe and reliable techniques" and so on (2.77; SD 0.44).

Conclusion

For those competencies rated low in the self-evaluation of competencies but rated high in terms of importance, more emphasis needs to be placed on these competencies.

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PSYCHOSOCIAL ISSUES AND THE STATE OF ANXIETY EXPERIENCED BY THE ADOLESCENT DIABETICS DURING THEIR TRANSITION TO ADULTHOOD

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Background: The period of transition from the childhood clinics to the adult clinics is considered as a high-risk process psychosocially for the adolescents with a chronic disease.

Objective: To determine the psychosocial issues and the state of anxiety experienced by the adolescent diabetic patients during their transition to adulthood.

Method: 16 diabetic patients of 18 to 24 years of age, who have attended a follow-up visit between 1st April, 2014 and 31st May 2014 and approached or reached their time of transition to the adult clinics due to their age, were included in the study. All the patients underwent a process of individual meeting. During this meeting, the patients were asked 9 non-biased and non-leading, pre-prepared questions to evaluate the issues and the anxiety they experienced. In addition, they were asked to complete the Beck depression scale and the State-Trait Anxiety scale. These meetings with a minimum duration of 10 minutes were recorded and printouts of these recordings were taken. Content analysis method was employed for analysis of the qualitative data.

Results: 68.7%, 25% and 31.3% of the adolescents were detected to be anxious, depressive and clinically depressed, respectively.

Satisfaction in paediatric follow-up and the anxiety regarding the transition:

We observed that 68.7% of the patients regarded the center, where they had been under monitoring for a long time, and the diabetes team as a family environment and did not want to leave this environment while 100% of the patients thought that their monitoring center was a scientific institution that was open to innovation, which made them feel good, and they did not want to adhere to a new environment and would have issues in trusting a new institution.

Opinion of the adolescents on living with diabetes: We observed that 56% of the patients hid their diabetes during childhood, however started sharing their status comfortably as they grew older.

Future anxiety and expectations on the period of transition:

We observed that the adolescents had a serious future anxiety and didn't want their diabetes follow-up to be disturbed due to transition to another institution (87.5%). However, they also stated that their transition would be appropriate after a good preparation, and reduction in their concerns about school and future anxiety.

Conclusion: The adolescents experience a serious anxiety during transition from the paediatric clinic to the adult clinic. A well-structured transition program and preliminary preparation would eliminate these concerns. There is a need for establishing a transition polyclinic designed for the period of transition from childhood to adulthood.

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CONTINUOUS GLUCOSE MONITORING: FACILITATING FACTOR FOR THERAPEUTIC ADJUSTMENT IN PRECONCEPTION FOR WOMEN WITH TYPE 1 DIABETES

Rita Almeida

Background

Women with type 1 diabetes (T1D) have increased risk of foetal malformations associated with hyperglycaemia during preconception and first trimester of pregnancy. Preconception care includes therapeutic and education approaches, essential to empower women/ couple to monitor glycemia at this phase, thus minimising the risk of complications such as miscarriage and birth defects. At the Reproductive Health Care Department in our Institution, continuous glucose monitoring (CGM) is used to diagnose and identify trends in real-time glucose monitoring, especially overnight and during the interprandial period.

Aim

To evaluate the effectiveness of CGM during preconception in women with T1D.

Method

Description and presentation of a clinical case of a woman with T1D whose treatment plan was adjusted after continuous glucose monitoring.

Results

Woman with 30 years-old and a T1D 26 years-long. Without chronic complications of the disease. On intensive treatment plan for 26 years, without achieving a good glycemic control. On her first visit she was using glargine and lispro insulin, but still experiencing difficulties in achieving a good glycemic control. The clinical team proposed her to perform CGM for seven-day period.

Based on the results obtained with the continuous monitoring of blood glucose, therapeutic adjustments were made in insulin therapy. After 3 weeks there was an improvement in glycated haemoglobin of 0.4% (7,8%-7,4%).

Conclusion

Continuous glucose monitoring can be a facilitator method for therapeutic adjustment and optimisation of metabolic control at preconception.

The results obtained are consistent with literature (Murphy, HR et al, 2008) relating improvement of glycated haemoglobin after using continuous glucose monitoring and therapeutic adjustment.

More studies need to be done in order to conclude about the importance of CGM, during preconception. In our Institution we have continued to use CGM as a tool during preconception care.

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THE COMPLIANCE OF SELF- MONITORING OF BLOOD GLUCOSE IN TYPE 2 DIABETES PATIENTS ON BASAL-BOLUS INSULIN THERAPY

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Background

The primary goal of diabetes treatment is to maintain blood glucose levels as close to normal. Self-monitoring of blood glucose (SMBG) is crucial to achieve this goal.

Aim

To evaluate the compliance of patients on SMBG in type 2 diabetes patients who use basal-bolus insulin therapy.

Method

Twenty-three type 2 diabetes patients (56.5% men, 73.9% married) whose HbA1c values were $\geq 7.5\%$, who had been using insulin for at least 1 year were included in the study. All patients had a semi-structured in-depth interview for 30-40 minutes. Fasting and postprandial blood glucose measurements were performed in accordance with the suggested time periods and the measurement techniques were reviewed.

Results

The mean (SD) characteristics were as follows; age: 61.0(6.0) years, diabetes duration: 15.0(6.0) years, and HbA1c: 9.5(1.4)%. Almost all (21 patients) stated that although they believe SMBG is necessary to monitor their condition, they did not take regular measurements. The main reasons behind that not performing regular SMBG included fear of high results, not being careful with their diet, not exercising and predicting that their blood glucose level is high anyway, forgetting, irregular lifestyle, difficulty/ inconvenience of living conditions, not being able to cope with stress, tiredness and insufficient social support. The patients correctly explained how they performed the fasting measurement however there were some mistakes in timing of postprandial measurement. Most stated that they had done SMBG 6 times a day three days before their outpatient visits (the visit frequency was 6 to 8 months) and sometimes in order to see their situation especially when they feel bad. The majority of patients did not change their lancets for a very long time.

Conclusions

Our study showed that patients did not perform SMBG regularly as desired and could not turn it into their lifestyle. The main reasons of this problem could be implicated to the healthcare system and personal reasons. Our results have brought into account the requirement of structured training programs to allow patients to reorganise lifestyle, improve adaptation and more frequent follow-up.

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THE ROLE OF DIABETES NURSE IN COGNITIVE SCREENING OF DIABETES PATIENTS IN OUTPATIENT DIABETIC CLINIC

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Background

Patients with diabetes mellitus (DM) have an increased risk for cognitive impairment and dementia. Full cognitive evaluation requires several resources and is time consuming. On the other hand, simple screening test Clock Drawing Test (CDT) may be easily performed and doesn't request special background knowledge. It has high sensitivity and specificity for cognitive impairment in general population and may be an optimal tool to use in busy diabetes outpatient clinic.

Aim

With our study we wanted (1) to evaluate cognitive impairment in DM patients and (2) to evaluate feasibility of CDT as a screening tool managed by diabetic nurse.

Methods

We included 300 patients (283 DM type 2, 138 women), who performed a Clock Drawing Test. Diabetic nurse instructed patient to write inside an empty circle numbers and put hands at 10 minutes past 11. Patients who scored 3 out of 4 points or less were considered cognitive impaired. In addition we collected demographic data, education level, DM duration and recorded CDT examination time.

Results

Mean age was 64.2 years (SD 10.5). Mean duration of DM was 12.5 years (SD 9). Majority of patients had 12 years of education (61.8%), 24.6% had 8 years or less and 13.6% had 14 to 18 years. All patients finished CDT in less than 5 minutes. Mean CDT score was 2.9 (SD 1.2). More than half (54%) scored 3 or less points. Patients without cognitive impairment were younger (61.1 years [SD 10.4] vs. 66.8 [9.9] years; $p < 0.001$) and had DM shorter time (10.9 [7.7] years vs. 13.9 [9.8] years; $p = 0.005$).

Conclusion

More than half of our patients had some sort of cognitive impairment. Two important risk factors for cognitive impairment in our group of patients were older age and longer DM duration. Diabetic nurses have quickly and easily evaluated cognitive impairment with CDT and have additionally contributed in further patient's management.

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CORRELATION BETWEEN BLOOD GLUCOSE AND BLOOD PRESSURE IN PEOPLE WITH DIABETES

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Background

Diabetes care includes strict hypertension control and all aspects of patient education on glycaemic and blood pressure self-control.

Aim

Determine gender, age, duration of diabetes, HbA1c, the presence of hypertension and the correlation between blood glucose and blood pressure levels in patients hospitalized in the Vuk Vrhovac Clinic.

Method

This study included 100 patients hospitalized for regular annual check-up. Blood pressure was monitored using a 24-hour blood pressure holter. Simultaneously measured blood pressure and blood glucose levels were compared. ANOVA test was used to compare the correlation between average levels of blood glucose, HbA1c, diabetes duration and blood pressure. Elevation of blood pressure was divided into three categories (mmHg): normal ($< 130/85$), prehypertension (130-139/85-89) and hypertension ($> 140/90$).

Results

There were 48% women and 52% men. Average age was 55.4 years, average diabetes duration 18.49 ± 10.04 , HbA1c 7.64 ± 1.43 , and glycaemia 7.97 ± 3.50 mmol/L. Comparison of HbA1c and blood pressure values revealed that average HbA1c was 7.40 ± 1.29 among patients with normal pressure, 7.53 ± 1.51 in those with prehypertension, and 8.06 ± 1.53 in patients with hypertension. Glycaemia (mmol/L) was 6.43 ± 2.79 in patients with normal blood pressure, 8.61 ± 4.00 in those with prehypertension, and 9.92 ± 3.15 in patients with hypertension. The relationship between average diabetes duration and blood pressure category expressed in years was 19.35 ± 11.02 in normal blood pressure, 14.89 ± 8.25 in prehypertension, and 19.8 ± 9.20 in the category of hypertension. ANOVA test showed that a difference ($p < 0.001$) in blood glucose level (mmol/L) with regard to blood pressure categories - average blood glucose in normotensive persons was 6.4, in those with prehypertension 8.6, and in hypertensive patients 9.9. No statistically significant difference in HbA1c and diabetes duration was found in comparison with blood pressure.

Conclusion

Considering the correlation between simultaneous increase in blood glucose and blood pressure levels, health care of hyperglycaemia should also include screening of people with increased blood pressure.

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NARRATIVE MEDICINE: FROM NARRATION TO ARTISTIC CREATION

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Background

In recent years therapeutic patient education for self-management of a chronic disease has been centred on patients' subjective experience of their illness. One approach has been to get patients to narrate their experience in an autobiographical way.

A programme based on creation rather than narration, by using imaginative writing and painting proved to be highly effective in fostering self-development.

Aim

To only express suffering, without transforming it, risks keeping it in the form of a complaint. The process of creation through painting and creative writing takes the patient along unknown paths and enables him to discover personal potential for development and self-efficacy. When sharing the experience, care-givers and patients reinforce their therapeutic relationship.

Methods

Writing and painting complement each other proposing different languages, symbols and metaphors in the process of giving shape to the inner world of the participant. A professional artist accompanies his efforts and makes him go further and deeper in exploring possible ways of expressing and transforming his work. He let him enter into a liberating process. At the end of each workshop, which lasts two and a half days, a round-table discussion on the works produced lets the participants express and share their experiences. Some workshops assemble care-givers and patients stimulating mutual understanding.

Results

Data collected (through group's semi-structured discussions and individual questionnaires) over a period of 10 years with 88 art-workshops and 280 participants, gave insight into the effects on quality of life. Patients identified

- Deeper self-awareness through the process of creation linked to introspection
- Reinforced self-esteem linked to discovery of personal potential
- Increased positive and active attitude to life and self-care
- Social integration through group interaction

Conclusion

The creative approach is a very useful adjunct in the management of a chronic disease. It promotes the acceptance of the chronic condition, improves health care, quality of life and may lead to an empowerment of both patients and care-givers in their respective roles.

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EVALUATING THE FACTORS AFFECTING THE COMPLIANCE OF ELDERLY TYPE 2 DIABETES MELLITUS PATIENTS WITH MEDITERRANEAN DIET

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Background

The Mediterranean diet (MD) is a primarily plant-based dietary pattern, with various health benefits, mainly in relation to decreased risk of cardiovascular diseases and cancer. Moreover, evidence indicates a positive effect of MD on type 2 Diabetes Mellitus (T2DM) as well.

Aim

The aim of the study is to evaluate the factors affecting compliance of elderly with T2DM with MD.

Methods

322 T2DM patients aged >65 years who attended a diabetes outpatient clinic (145) and a day care facility (177) were eligible in the study. Patients' HbA1c, medication, somatometric measurements, intercurrent diseases, psychological state, fasting plasma glucose and blood pressure were recorded. Patients answered a questionnaire in order to calculate the Med Diet Score (MDS).

Results

Patients' mean age was 73.03±8.65 years, while the mean MDS was 33.79±3.75, without a statistically significant difference between third and fourth age T2DM patients (p=0.202). Factors affecting MDS were gender (b=1.252, p=0.046) with females having better score, presence of coronary artery disease (b=2.421, p=0.017), presence of hypertension (b=3.035, p=0.038) and depression (b=-3.456, p=0.011). Social-economic factors with significant correlation with MDS were economic status (b=1.452, p=0.023) and marital status, since people living alone had lower MDS (b=-1.873, p=0.048).

Conclusion

The compliance to Mediterranean diet is affected by medical and social-economic factors. People with coronary artery disease, hypertension, without depression present a higher compliance to Mediterranean diet.

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A PATIENT CENTERED APPROACH OF NEWLY-ARRIVED PERSONS TO A DIABETES CLINIC

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Background

Person-centered therapeutic education and group education with active methodologies promote experiences' sharing, conviviality and stimulate learning among participants. Our institution introduced two structured programs (P1; P2) for self-management education (DSME) addressed to newly-arrived patients.

Aim

To perceive the programme's practical feasibility and people's adherence.

Method

Participants are invited to attend programme 1 or 2 according to their age, residence area, HbA1c and convenience. (P1): lasts for 04:30h; people perform several complementary tests, foot screening and foot care education and participate in 2 group sessions addressing diabetes treatment and self-control, healthy eating and physical activity. (P2): lasts for 3 months with 3 group sessions (S1, S2, S3); facilitators use IDF approved education tools, providing interactive learning experiences. S1 promotes reflection on disease's self-management, S2 relates to healthy eating general concepts, and S3 comprises a physical activity session.

Results

P1: A sample of 300 people (February-September 2013) aged 60.4 ± 10.3 years, initial HbA1c mean $8.7 \pm 1.5\%$ and BMI $28.2 \pm 4.6 \text{ kg/m}^2$. No consistent changes were observed in BMI or HbA1c values in this group between the session and the medical consultation.

P2: A sample of 231 people (same time period), aged 68.3 ± 8.8 years, initial HbA1c mean of $9.1 \pm 0.7\%$ and BMI $35.3 \pm 3.2 \text{ kg/m}^2$. The drop-out rate was 10,8% at S2 and 82% at S3. No consistent changes were observed in BMI between groups. It was observed a decrease tendency of HbA1c between S1 and medical consultation directly related to the number of sessions attended (Δ HbA1c S1: -0,27%; S1-2: -0,59 %; S1-3: -0,85 %)

Conclusion

The consistent decrease in HbA1c (P2), achieved independently of weight loss, hints to the impact of sharing solutions among peers by boosting diabetes acceptance, well-being and development of autonomy with DSME. The longer duration of this program also enables a timely integration of knowledge and skills in daily life. However, the high drop-out before the exercise session advises us to consider alterations on program implementation.

First Announcement 20th FEND Annual Conference

11-12 September 2015
Stockholm Sweden

On behalf of the Foundation of European Nurses in Diabetes we cordially invite you to attend the 20th Annual Conference of FEND

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Check online for all FEND info at

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More dates for your diary

IDF World Diabetes Congress

2-6 December 2015
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www.idf.org/worlddiabetescongress

51st EASD Annual Meeting

14-18 September 2015
Stockholm Sweden

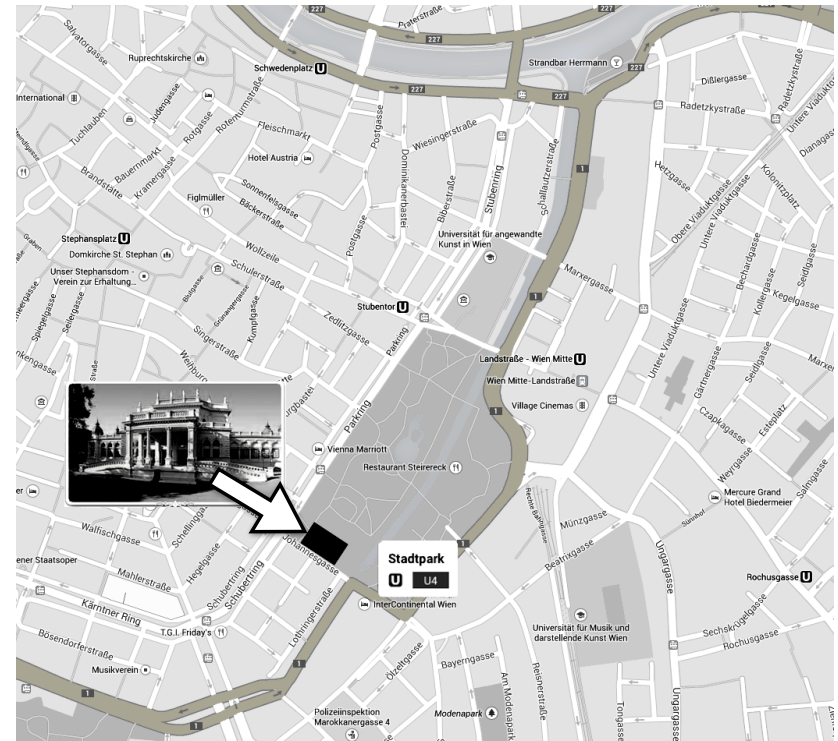
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Conference Dinner

Friday 12 September
 1930 Pre Dinner Cocktails
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 Kursalon
 Johannesgasse 33, A-1010 Vienna
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Location Plan

