

## NEWSLETTER



# Monthly Diabetes Educator

A forum for diabetes educators, dietitians and other health care professionals with interest in diabetes.

## Aims:

To provide, facilitate and promote education for prevention and management of diabetes and its complications.

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## Overview on NADEP Diabetes Foot Con 2018

National Association of Diabetes Educators of Pakistan in collaboration of Baqai Medical University, Baqai Institute of Diabetology and Endocrinology, and Pakistan Working Group on Diabetic Foot organized its conference at Lahore from August 10-12, 2018. It was very well attended by Diabetologists, endocrinologists and family physicians interested in diabetic foot care. Saving Feet by implementation of guidelines in clinical practice was the theme of the conference. Prof. Khalid Masood Gondal Vice Chancellor of King Edward Medical University was the chief guest in the inaugural session. Speaking on this occasion he said that no surgeon is ever interested in doing amputation surgery for diabetic foot, so its essential to focus on prevention.

Prof. Abdul Basit Director of BIDE speaking on the occasion said that after the establishment of Diabetic Foot Care clinic, they have been able to reduce the amputation rate at BIDE by 75%.



Dr. Zahid Miyan in his address said that NADEP was a unique platform where people with diabetes work together. It has nurses, doctors, podiatrists, patients with the main aim of improving the diabetes care.

Prof. Bilal Bin Yonus in his welcome address highlighted the challenges being faced by Pakistan in diabetes in general and diabetic foot care in particular.



Eminent national and international speakers talked on critical areas in diabetic foot care.

Prof. Abdul Basit Director BIDE was the first speaker who talked about where are we now as regards to implementation of Diabetic Foot Care Guidelines.

Dr. Zulfikar G. Abbas Chairman of Pan Asia Diabetic Foot Study Group made a presentation on Diabetic Foot Infections- Common enemy in the two continents of Asia and Africa.

Dr. Mussarat Riaz formally launched Forum for Injection Techniques (FIT) Pakistan Guidelines on Injection techniques during the Congress.

Dr. Uzma Khan from USA talked about "Neuropathic Pain- Thinking outside the Box".

**Dr. Gulapar Srisawasdi** from Thailand was the second speaker who talked about Footwear and Offloading to prevent and heal foot ulcers.

**Dr. Kristein Van Acker** from Belgium spoke on Time to Implement Guidelines- a Global Perspective.

This was followed by a presentation by **Dr. Zahid Miyan** on Foot Wear for Every Diabetic. He pointed out that every twenty



seconds, a limb is lost. Patients should present with neuropathy before ulcer develops as there is a window of prevention. This is the time to prevent amputation.

**Dr. Tarek Fiad** from UAE talked about “Can innovations ease transition to injectable therapies”. An ideal injectable therapy, he said, should have an overall lower rate of hypoglycaemia, offer meaningful decrease in HbA1C levels, lead to weight loss and offer cardiovascular safety.

**Prof. Bilal Bin Younis** discussed Charcot Arthropathy. He pointed out that once amputation takes place it has a 30% mortality which increases to 50% after three years and 70% after five years.



**Dr. Hamed Farooqi** from UAE spoke on new horizons in the management of Type-2 diabetes.

**Prof. Amber Malik** from Sheikh Zayed Hospital Lahore made a presentation on Recent Vascular interventions.

Several workshops were conducted by physicians, dietitians, educators and physical therapist.

## Foot Care Model in Pakistan

**Prof. Abdul Basit**

Pakistan is a country with very high prevalence of diabetes. Nearly, 4-10% of people with diabetes develop foot ulcers, more than 10% of which culminate in amputation. Diabetic foot is a source of tremendous economic burden in the resource constraint society of Pakistan. Prevention of diabetes related foot ulcers is the most cost effective strategy. However, an organized diabetic foot care program did not exist in Pakistan.

With an objective of prevention of diabetes related foot ulcers and improvement of foot care, Step By Step program was replicated in Pakistan, after successful implementation in India and Tanzania. The program has been developed by international diabetic foot experts and financially supported by the World Diabetes Foundation. Vigorous awareness campaign was initiated. Training programs for physicians, diabetes educators and foot care assistants were organized. Foot care teams, consisting of a doctor and an assistant were trained. Nationwide network of 115 foot clinics was established.



Results showed a positive outcome, with an improvement of diabetic foot care and reduction in the amputation rate, from 11.51% to 6.64%. Pakistan Working Group on the Diabetic Foot (PWGDF) is now embarking on development of 1700 diabetic foot care teams within the next three years.

## Gestational Diabetes Mellitus

**Dr. Musarrat Riaz**

### What is Gestational Diabetes?

Gestational diabetes mellitus (GDM) has been defined as any degree of glucose intolerance in which onset or first recognition occurs during pregnancy, irrespective of the treatment regime, and whether or not the condition persists after pregnancy.

### How Gestational Diabetes is diagnosed?

If GDM is suspected, a diagnostic Oral Glucose Tolerance Test (OGTT) is indicated irrespective of the stage of pregnancy, however if the test is normal in the early stages of pregnancy, a repeat test is recommended at 26 to 30 weeks gestation.

### Who is at Risk?

Every pregnant woman is at risk, however women with 1 or more factors are at increased risk

- over 30 years of age
- have a family history of type 2 diabetes
- are overweight
- are from a high-risk background
- have had gestational diabetes during previous pregnancies.

### What causes Gestational Diabetes?

In pregnancy, the placenta produces hormones that help the baby to grow and develop. These hormones also block the

action of the mother's insulin. This is called insulin resistance. Because of this insulin resistance, the need for insulin in pregnancy is 2 or 3 times higher than normal. If the body is unable to produce this much insulin, gestational diabetes develops.

### Managing Gestational Diabetes

Gestational diabetes is managed by monitoring blood glucose levels, adopting a healthy eating plan and performing regular physical activity. Gestational diabetes can often initially be managed with healthy eating and regular physical activity. However, for some women with gestational diabetes, insulin injections will be necessary for the rest of the pregnancy. Approximately 10 – 20% of women will need insulin.

After the baby is born, gestational diabetes usually disappears. A special blood glucose test, OGTT, is performed six weeks after delivery to ensure that blood glucose levels have returned to normal. However, women who have had gestational diabetes have an increased risk of developing type 2 diabetes later in life.

### Reducing the Risk of Developing Type 2 Diabetes

While maternal blood glucose levels usually return to normal after birth, there is an increased risk for the mother developing type 2 diabetes in the future. To reduce risk or delay the development of type 2 diabetes following points are important

- Maintain or achieve a healthy weight
- Eat healthily
- Be physically active
- Check blood glucose levels regularly

## Behavior Change of People with Diabetes in the Digital Age

Mr. Mansoor Ahmed Siddiqui

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Attitude and behavior change help in prevention and management of diabetes and diabetic complications. There are several studies which already proved that continued education improves the diabetes management and can reduce the prevalence rate of diabetes. Virtual Environments (VE) can be an excellent tool to manage diabetes and decrease prevalence of diabetes. VE software's are programs or systems that are interactive that give operators the illusion of displacement to an alternative location. Several terms have been used for the illustration, like "artificial reality" and "virtual reality".

Through VE we can generate 3D models which can provide bi-directional interaction and through this we can transmit knowledge and support for behavior change. One of the most attractive and interesting features of VE is that now the 3D models (avatars) look more like humans; the person who interacts does not feel anything abnormal. It gives a feeling of presence and co-presence that may accurately replicate real-world group interactions among individuals. VE-mediated interactions resemble those in face-to-face environments, as individuals in VEs engage in bidirectional exchanges with others to obtain self-management education and support. Similar to face-to-face scenario, individuals in the VE, exposed personal information, sought information, and exchanged support during the moderated education sessions and unstructured support sessions with the virtual model and feel in the same comfortable zone as in face to face settings.

With this versatility, VEs can contribute substantially to support those with diabetes and, very likely, other chronic diseases.

VE can play an important role in Pakistan. It can be helpful in both healthcare industry and on a personal level. We can also think to implement these models in various local languages.



## Information Corner

### Steps in Quantitative Research



## Publications of the Month

Open access

Research

### BMJ Open Prevalence of diabetes, pre-diabetes and associated risk factors: second National Diabetes Survey of Pakistan (NDSP), 2016-2017

Abdul Basit,<sup>1</sup> Asher Fawwad,<sup>2,3</sup> Huma Qureshi,<sup>4</sup> A S Shera,<sup>5</sup> NDSP Members

International Journal of Diabetes in Developing Countries

<https://doi.org/10.1007/s13410-018-0683-5>

ORIGINAL ARTICLE



### Prevalence of diabetic micro vascular complications at a tertiary care unit of Karachi, Pakistan

Mujeeb Abro<sup>1,2</sup> · Awn Bin Zafar<sup>3</sup> · Asher Fawwad<sup>4,5</sup> · Nida Mustafa<sup>5</sup> · Bilal Tahir<sup>5</sup> · Musarrat Riaz<sup>3</sup> · Abdul Basit<sup>3</sup>

Original Article

PAKISTAN JOURNAL OF  
MEDICAL SCIENCES  
QUARTERLY

### Association of serum liver enzyme Alanine Aminotransferase (ALT) in patients with type 2 diabetes

Mujeeb Ur Rehman Abro<sup>1</sup>, Anum Butt<sup>2</sup>, Kulsoom Baq<sup>3</sup>, Nazish Waris<sup>4</sup>, Maria Khalid<sup>5</sup>, Asher Fawwad<sup>6</sup>

## Patient Corner

### Story of Zain with type1 Diabetes (Part-1)

Miss. Erum Ghafoor

My name is Zain Khan, I am 12 years old and studying in 8th grade at Beaconhouse. I have two siblings a sister and a brother. My mom is a housewife, and my father is an aeronautical engineer. I am captain of the football team at school. A few months ago, I was a usual child, but life has turned me into a special and brave one because I got diagnosed with type-1 diabetes. My family and I didn't know what type1 diabetes is and how it happens.

A few months ago, I was feeling bit weird, but I didn't inform my parents as they may get worried and bring me to the doctor. I was feeling that my appetite was getting reduced and when I went for my football practice than I gets exceptionally lethargic

and blur vision made me lose my best kicks which were annoying to me. I have noticed that my clothes were getting loose day by day, and even some of my friends have pointed out, but I was not bothered as I thought I am getting in shape due to my regular football practice. I remained thirsty all the time and needed to use loo several times especially during the nights. Even I became very irritated with everything and everyone. I was a cheerful person, but these days, small things and humor could easily be made me short-tempered, and that was not that cheerful Zain for sure.

It was a usual Thursday, when I woke up in the morning, I was feeling as sleepy as I didn't sleep all. My mom kept calling me and telling me that I will get late for school. I was trying to get up, but I was feeling like my all the energies went away and the strange pain was crawling inside my

stomach. I didn't want to alert my folks because I knew that they would get I was trying my best to change and went to school but I was unable to do that, my father was noticing me silently, he encouraged me to say out, and at last, I told them what is happening with me since many days. They immediately called our family doctor, and he came home very quickly. He was listening to all my condition with great patience and told us that he need to check my blood glucose levels. My mom said there is no need at all since we don't have diabetes in the family but he insisted.

Continue in next issue .....

#### Moral of the part:

Always provide such environment to children in which they can openly discuss their personal problems with ease.

### You are Not Alone.....!

Mr. Muhammad Qutubuddin

"Assalaam o Alaikum, BIDE helpline..."

The registered patients at BIDE are quite familiar with this greeting. Most of them regularly call the helpline to achieve the target blood glucose level. The history of this unique service dates back to the inception of BIDE itself. Right from the beginning, efforts were made to enable people with diabetes to achieve an excellent quality of life like the general population. If a patient with diabetes visits the diabetic clinic four times a year, she/he will be having the consultation with the physician approximately two hours per year and would have left 8,000 hours per year for them to manage their diabetes by own self. During this long duration, some questions often arise, and support is needed, such situations require a system to provide ongoing support. To address this issue helpline service was initiated as a cheaper medium for people with diabetes in emergency situations. Majority of people with diabetes develop acute complications due to poor control and lack of knowledge. If timely advice is given on the phone to the patient or the caretaker the frequency of



complications can be reduced significantly, eventually leading to decreased morbidity and mortality.

The 24 – hour helpline service gives the patients visiting BIDE a sense of security related to their health condition. They feel there is someone always present just a phone call away from whom they can take expert advice to manage their situation.

The trained diabetes educators are present around the clock seven days a week. They advise according to the person's condition considering the patient records available on the BIDE Health Management System (HMS). If required, the consultants or duty doctors are also approached. All incoming and outgoing calls get recorded to maintain quality.

Today 10,000 of BIDE patients are registered under this service and according

to a recent study these patients have good glycemic control.

Through the BIDE helpline, as diabetes educators, we provide education, training, support, and encouragement to people with diabetes and their families – and we often offer these gifts with love and compassion. We encourage you to get registered with the 24-hours helpline service so you can remain connected and find us with you on the journey of managing your diabetes.

#### In the Next Issue

- Latest updates of NADEP activities
  - Latest researches and updates in the world of diabetes prevention, care and management
  - A new type in diabetes: Type 3 c
  - Overview of 2nd National Diabetes Survey of Pakistan 2016-17
- and more...

