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Imminent epidemic of diabetes mellitus in Pakistan: issues and challenges for health care providers

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Editorial

Imminent Epidemic of Diabetes Mellitus in Pakistan: Issues and Challenges for Health Care Providers

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Diabetes mellitus (DM) is a chronic metabolic disorder that has emerged as a great socioeconomic burden for the developing world. Over the past two decades there has been a significant rise in the prevalence of this devastating illness and is presenting as an alarming issue.[1]

Currently DM affects 240 million people worldwide and this number is projected to increase substantially to 380 million by 2025, with 80% of burden in low and middle income countries [2]. Pakistan belongs to high prevalence area, currently having 6.9 million affected people, with projected estimates expected to double by 2025 and affect 11.5 million people [3]. This alarming situation can have serious repercussions and presents as a challenge for Health Care Providers and health care policy makers in the country.

Diabetes is the fourth leading cause of death in most developed countries [4], with Pakistan currently ranking at 7th position in the list of countries with major burden of DM and it is expected to move to 4th position [5] if present situation continues.

The prevalence of both Type-1 and Type-2 Diabetes Mellitus is increasing worldwide but the prevalence of Type-2 is rising much more rapidly[1]. The alarming increase of diabetes prevalence is projected to occur because of: population ageing, unhealthy diet, obesity, sedentary lifestyle and smoking [6]. According to a survey in Pakistan, prevalence of newly diagnosed diabetes was 5.1% in men and 6.8% in women in urban areas and 5.0% in men and 4.8% in women in rural areas. Impaired glucose tolerance in the urban versus the rural areas was 6.3% in men and 14.2% in women against 6.9% in men and 10.9% in women, respectively[7].

In the past Type-2 diabetes was considered as a disease of ageing and the elderly but now this perception has turned out to be a complete misconception and people with this disease in developing countries including Pakistan are presenting at a younger age. The emergence of this pandemic at early age is attributable to rapid cultural changes and a high degree of urbanization leading people to adopt unhealthy lifestyles and decreased physical activity. Obesity along with sedentary life style and increase in caloric intake played a major role in recent explosion of this chronic illness[8]. Recent figures related to obesity in adolescent's show 6% of school children are obese while 19.35% are at risk for overweight with increase caloric intake and sedentary life style[9].

Type-2 DM is one of the major causes of premature illness and death worldwide due to cardiovascular death[10]. It is also ranked among the top causes for blindness and renal failure [10]. Poor glycemic control results in diabetic foot and amputation ultimately leading to dependency. depression, and enormous healthcare costs for virtually every society[11]. The financial burden of this disease and its complications is increasing the overall health expenditures. The presentation of this chronic disease at younger age, extends the potential burden of therapy to an even younger age group and for an even longer period of time, thus further increasing financial burden on the patients and country.

The scarcity of health-care services and poor infrastructure for health care in Pakistan is an important factor in making it difficult to control the emerging epidemic of DM in the country. There are 139555 doctors and 12,897 health facilities in the country to cater for 170 million people and with 69313 nurses but none trained specifically in the field of diabetes. There are 5345 Basic Health Units located in the rural areas supposedly providing care for nearly 170 million people[12].

Despite alarming situation in the country very few specialized diabetes centers and diabetic foot clinics are available and usually not accessible to the majority. Nurses working in diabetic centre usually do not receive any special education for diabetes. Government has allocated very limited funds for health sector. All these circumstances have made health care expensive and beyond the reach of most people thus leading to growing incidence of the condition, with the rural areas being the most affected. Family physicians who encounter majority of patients with diabetes are not updated with recent management of diabetes and have insufficient time to counsel patients for life style modification and management[13].

Diabetes epidemic in Pakistan is a major challenge for Health Care Providers. Our current health care system have increasing difficulty in meeting the chronic health care needs of patients with diabetes, and calls for collaborative efforts between diabetic patients, health-care professionals, and health-care policy makers. Educational programmes focusing on health issues, promoting a healthy lifestyle, dietary habits and exercise are urgently needed. Warnings about the hazards of diabetic complications should also be emphasized.

Early diagnosis of DM reduces the risk of the serious complications, and initiating appropriate management of the condition will allow diabetic patients to live

longer, healthier lives. The aim of integrating diabetes into primary health care is to establish routine screening procedures for monitoring and control and detecting the common complications of diabetes. It is important that Family Physicians, the most important first healthcare contact for people with diabetes, are trained in screening and treatment. They can also offer preventive programs that stress on proper diet and exercise. More specialized diabetic clinics including foot care clinics should be established.

In rural areas, where the infrastructure simply does not exist, all basic health units should be provided with glucometers to test blood sugar, and training to ensure that they are used correctly. These efforts must be backed up by a vigorous public health education campaign. For remote areas, beyond the reach of the BHUs, mobile camps should be set up periodically. Diabetes medication including drugs and insulin with syringes at subsidized rates should be provided for those who cannot afford them at regular price.

Given the enormous challenge of DM epidemic in the coming years on one hand and the lack of resources on the other, it is mandatory to initiate proactive measure on urgent basis. A proper action plan based on appropriately collected data should be top priority for health planners and policy makers. Resources will have to be mobilized and a multipronged approach will have to be utilized. It is high time we act now before it is too late.

REFERENCES

1. Diabetes facts. The prevalence of diabetes has reached epidemic proportions.[online] 2010 [cited2010 July18]. Available at: http://www.world diabetesfoundation. org/composite-35.htm.
2. International Diabetes Federation. Diabetes Atlas. 3rd ed. Brussels, Belgium: International Diabetes Federation: 2006.
3. The Nation. WHO ranks Pakistan 7th on diabetes prevalence list [online] 2008 [cited 2010 July 18].Available from: http://www.nation.com.pk/pakistan-news-newspaper-daily-english-online/Regional/Karachi/15-Nov-2008/WHO-ranks-Pakistan-7th-on-diabetes-prevalence-list.
4. International Diabetic Federation Diabetes [online] 2006 [cited 2010 July 18]. Available from: http://www.idf.org/webdata/docs/background_dis_final.pdf.
5. Khuwaja AK, Fatmi Z, Soomro WB, Khuwaja NK. Risk factors for cardiovascular disease in school children: a pilot study. J Pak Med Assoc 2003 53; 396 – 400.
6. WHO Global strategy on diet, physical activity and health diabetes [online] 2010 [cited [cited 2010 July19].Available from: http://www.who.int/dietphysiaclactivity/publications/facts/diabetes/en/.
7. Aziz S, Noorulain W, Zaidi U R, Hossain K, Siddiqui I A. Prevalence of overweight and obesity among children and adolescents of affluent schools in Karachi. J Pak Med Assoc 2009: 59; 35-38.
8. Iqbal N. The burden of type 2 diabetes: strategies to prevent or delay onset. Vasc Health Risk Manag. 2007 August; 3(4): 511–520.
9. Shera AS, Jawad J, Maqsood A. Prevalence of diabetes in Pak.Diab Res clin Pract. 2007:76; 219 -22.
10. WHO Diabetes. [online] 2009 [cited 2010 July19].Available from: http://www.who.int/mediacentre/factsheets/fs312/en/
11. Vileikyte L.The psychosocial impact of diabetic foot damage.Diab Voice 2005:50;11-13.
12. Health Institutions Beds and Personnel[online] 2009 [cited 2010 July15] available from: by Statistics Division, Government of Pakistan.
13. Shera AS, Jawad F, Basit A. Diabetes related Knowledge, Attitude and Practices of Family Physicians in Pakistan. J Pak Med Assoc 2002;52: 465-470.

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