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Family physician Corner

Management of Diabetes Mellitus in Local Health Centers

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Diabetes mellitus has become one of the most widespread diseases within Bahrain community. It is a multi-system disease, which may result in multi-systemic complications if not well controlled. Hence the importance of its early and prompt treatment as part of prevention, in a primary care setting. Ministry of Health had established a clinic for diabetes run by a nurse in health centers[1], but it was not generalized to all health centers. Diabetic Committee members prepared protocols and guidelines for nurses in these clinics. Unfortunately, these diabetic clinics are not staffed by physicians, to work together with the nurses in managing diabetic cases. Physician-nurse integrated program for diabetic care have to be developed to provide uniformity in the treatment among all physicians, nurses, and for all patients. Furthermore, combined nurses-physicians' diabetic clinic should be established to allow the proper application of this program. Regular monitoring of this program through medical audits have to be arranged. Before implementing this program, it wouldn't be surprising to find many uncontrolled diabetic cases among our patients. There is no doubt that allocating the resources towards prevention of complication of diabetes in primary care setting will outweigh the budget that would be needed for the treatment of these complications.

Diabetes has become one of the most widespread diseases in many countries. In Bahrain, in a nation–wide survey of diabetes and cardiovascular risk factors, it was found that prevalence rate of diabetes, was among the highest in the world, it is around 30%[2]. In a recent study, on the prevalence of diabetes mellitus among non-Bahraini workers registered in primary health care in Bahrain, the prevalence was found to be 10.6% of which 3.3% were previously diagnosed, and 7.3% were newly diagnosed. The prevalence of impaired fasting glucose tolerance was 6.3%, making total glucose intolerance 16.9% which is considered to be high compared to other parts of the world[3]. In other study, the prevalence of obesity in adults, which is usually associated with type II diabetes and impaired sugar tolerance, was found to be 15% in males and 31% in females[4]. Consequently, we are facing a huge public health problem, which needs important and urgent actions now to save time and money in the future.

Diabetes mellitus is a multi–system disease, which if left uncontrolled or mal treated can end up with serious multi-systemic complications. Cardiovascular complications were found to be a major cause of excess mortality in type 2 diabetes, micro vascular disease remains a cause of major morbidity. All these findings have led to major advances in the management of diabetes all over the world. Many diabetic centers, which include eye and foot care have been established. At a general practice level, many countries, like USA and UK, developed specialized diabetic clinics in their local health centers based on a proper evidence-based diabetic care program. The function of these clinics is to give adequate care to diabetic patients attending their GPs with early detection of complications and thus early intervention. In Bahrain, with high prevalence of diabetes compared to other parts of the world, we are definitely in need for such a program.

The ministry of health has established specialized diabetic clinics throughout various health centers[1] in 1997. Unfortunately these clinics are run only by nurse and are not generalized to all health centers. This is probably due to shortage of resources and well-trained diabetic nurses. Furthermore, due to the vast workload in these health centers, these clinics were closed later on. At present, they are only

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running in Hamad Town, Essa Town, Ibn Sina, Shaik Sabah and N.B.B health centers among the twenty health centers all over Bahrain. I tried to get information on how much effect these clinics has added on the level of provided care, and thus the outcome on diabetic patients, but no feedback from the concerned people could be obtained.

Diabetic Committee members prepared protocols and guidelines for nurses in these clinics. The diabetic nurse do the assessment, observation, monitoring the conditions of patients and providing nursing care interventions, but will refer to the family physician for all abnormalities and complications, whenever arise. The nurses are given enough time for this evaluation, 30 minutes for first visit and 15 minutes for follow up visits. On the other hand, the physician will provide medical care to the diabetic patient in his/her normal daily busy clinic with a regular appointment of 7 minutes duration. Unfortunately, physicians do not staff these diabetic clinics, which will allow them to see the diabetic patients in time and in collaboration with the diabetic nurse. Although in some health centers this has been tried, like Hamad Town health center, a coordinated nurse/physician visits were arranged so that the patients can be seen at the same time in organized clinic, and for a longer time rather than seven minutes in physician's clinic. Unfortunately this couldn't be maintained for a long time due to the workload and shortage of the physicians.

Based on the above-mentioned situation, a physician-nurse integrated diabetic care program has to be developed. This program will support the family physician and other health care workers - nurses and health educators to provide best practice through an integrated clinical care for all patients with diabetes. It will allow the whole team to work within the frame of uniform standards agreed by all clinicians, nurses and health educators who are involved in diabetic care.

Furthermore, combined nurses and physicians' diabetic clinic should be established to allow the proper application of this program. At present, the current situation in local health centers, especially in those who don't have diabetic nurse clinics, the diabetic patients are distributed to different doctors at different visits without an existing standardized protocol to be followed by these doctors The patient may be seen by one doctor in one visit and may have his/her treatment plan changed by another doctor in the next visit. In addition, there is no systematic call and recall of patients on the register, no proper continuing education program for all diabetic patients (or their care-givers), no appropriately trained health professionals (like, community nurses, dietitians and chiropodists) are available to help these physicians, no locally agreed referral guidelines and no adequate records of the performance and management of these patients to be used as a resource information for clinical audits and research work. Although, there is a diabetic sheet to be used for initial and follow up visits, but it is occasionally used in daily practice as it takes time to be filled in the busy clinic with visits of 7 minutes duration. It is so clear that we are in an urgent need for diabetic care program that takes all the above-mentioned points into consideration. This is obviously what we are expecting from the quality assurance program, which is responsible for raising the standards of health service.

Regular monitoring of this program through medical audits has to be arranged. However, it would be more informative if we carry this audit before and after implementing the program to evaluate how much this program has raised the standards of diabetic care, and to add any possible change on this program. Definitely, before implementing this program, it wouldn't be surprising to find many uncontrolled diabetic cases among our patients.

Finally, there is no doubt that allocating the resources towards prevention of complication of diabetes in primary care setting will outweigh the budget that would be needed for the treatment of these complications.

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