***Family Physician Corner***

# Chronic Conditions Management in Bahrain – a Word of Truth

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**"The lives of far too many people in the world are being blighted and cut short by chronic diseases such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes"[1].**
LEE Jong Wook, Director General, World Health Organization**.**

The reduction of chronic conditions is sought in many developed as well as developing countries and considered a strategic goal. The overwhelming epidemic of chronic conditions has triggered a worldwide campaign to increase awareness of its forthcoming consequences. The WHO has set the prevention of chronic diseases as a global goal in 2015[1].

Over the past decades, the Eastern Mediterranean region has experienced a epidemiologic transition; chronic diseases are now the leading cause of death among adults[2]. This so called epidemiologic transition is partly due to the rapid ageing of the developing world's population and the progressive urbanization and socioeconomic transformation. Other major factors include changes in nutritional patterns with over consumption of fatty foods[3].

The focus on secondary and tertiary care, rather than preventive care, had increased the incidence of chronic diseases[4].

There are many myths and misunderstandings concerning long-term conditions including the misconception that they are limited to rich old men, that prevention is expensive or impossible, and that death is inevitable. These misunderstandings render dealing with chronic conditions challenging and cumbersome[1].

It is important to pay attention to the increasing prevalence of chronic disease and act upon it urgently.

In this report, I will discuss the different definitions of chronic conditions, an adapted prospective definition, the burden of chronic conditions in Bahrain, the organization of chronic condition care in Bahrain, identifying and evaluating chronic conditions and their impact and finally the concept of self management and its application to the Bahraini population.

## Definition of Chronic Conditions:

Many definitions have been proposed by different prestigious bodies. A chronic condition is defined as:

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1) A disease, illness or injury which has at least one of the following characteristics[5]:

- It continues indefinitely and has no known cure.
- It comes back or is likely to come back.
- It is permanent.
- Patient needs to be rehabilitated or specially trained to cope with it.
- It needs long term monitoring, consultations, check ups, examinations or tests.

2) A condition that lasts 3 months or more, by the definition of the U.S. National Center for Health Statistics.

3) Illnesses that are prolonged, do not resolve spontaneously, and are rarely cured completely[5].

**Why the Change of Terminology?**

The main chronic diseases defined by the WHO are heart diseases, strokes, cancer, chronic respiratory diseases, and diabetes. These diseases share common risk factors and a common etiologic background. The wide and variable spectrum of chronic conditions has mandated adoption of the term "long-term conditions" as a more inclusive and flexible term to accommodate all chronic conditions encountered by health care professionals.

**An Adapted Prospective Definition**

As a health professional caring for patients with long-term conditions, the definition that is most in line with my clinical practice would combine the pathology, the clinical aspects, the consequences and the psychological impact of long-term diseases. Most definitions lack the emphasis on the commonality in pathology for most long-term conditions. This approach may widen our scope in handling the consequences of chronic conditions and establish ground for strong collaborative efforts for prevention and monitoring.

**Burden of Chronic Conditions in Bahrain**

Chronic conditions such as cardiovascular diseases, diabetes, cancer and injuries are rising dramatically in Bahrain. According to the 2006 health statistics, the leading identifiable cause of death was cardiovascular diseases, followed by endocrine, metabolic and nutritional diseases (see Table 1)[2].

**Table 1: Top Leading Causes of Death in Bahrain**

| Causes of Death - Rates per 100000 population | 2005 | 2006 |
|---|---|---|
| Circulatory system | 59.9 | 60.5 |
| Endocrine, Nutritional and metabolic disorders | 32.3 | 46.3 |
| Accidents and Injuries | 28.3 | 36.6 |
| Neoplasms | 36.8 | 34.1 |
| Respiratory Disorders | 19.7 | 17.1 |

Health statistics in Bahrain as in many developing countries is unreliable. Data about chronic conditions seem scarce and less reliable than that of communicable diseases.

The data available of the burden of chronic conditions is derived from secondary care vicinities. It focuses mainly on percentages of bed occupancy, recurrent admissions and mortality from chronic conditions rather than the prevalence and burden of conditions in the community.

The official figures quoting the prevalence of common chronic conditions are obsolete, dating back to the late nineties. Their reliability is questionable as flaws in the data retrieval design are claimed by critics.

The Bahrain National Nutritional Survey (1998) addressed the prevalence of self-reported cardiovascular disease-related events in the Bahraini adult population. Table 2 shows the prevalence of hypertension, heart attack, stroke events and hypercholesterolemia[6].

**Table 2: Self-reported History of Diagnosed Chronic Diseases from the National Nutritional Survey**

| Variable | Males (n=1120) | Females (n=1181) | Total (n=2301) |
|---|---|---|---|
| Hypertension | 21.1% | 20.6% | 16.4% |
| Heart Attack | 3.4% | 4.9% | 4.2% |
| Stroke | 0.5% | 0.3% | 0.4% |
| Hypercholesterolemia | 1.9% | 3.9% | 2.9% |

Diabetes Mellitus and impaired glucose tolerance (IGT) are recognized causes of morbidity in Bahrain. Several epidemiological surveys on diabetes have been conducted in Bahrain. Table 3 shows the prevalence of diabetes in Bahrain to be lower in males aged 50-59 years compared to females in the same age group[6]. The study also reports that 35% of the newly diagnosed diabetic patients in the study sample were unaware of their illness[6].

**Table 3: Prevalence of IGT and Diabetes by Sex and Age**

| Diagnosis | Male | | Female | |
|---|---|---|---|---|
| | Age (years) | | | |
| | 40-49 | 50-59 | 50-59 | 60-69 |
| Normal Glucose tolerance | 60% | 55% | 45% | 40% |
| Impaired Glucose Tolerance (IGT) | 17% | 16% | 19% | 23% |
| Newly Diagnosed diabetes | 11% | 9% | 11% | 12% |
| Previously Diagnosed Diabetes | 12% | 20% | 25% | 25% |

Mr. A A, 39 years old diabetic, hypertensive, obese and hyperlipidemic is a very dedicated patient who attends my clinic regularly. Before I saw him, he was followed up by different family physicians, his AbA1c was consistently above 13% and his triglyceride was 6 mmol/L. After he joined my clinic, we were able to decrease his HbA1c to 10% and triglyceride to 2mmol/L, this was mainly due to the chronic management team approach that I implement in my practice. The strategy and objectives of such team is to deliver consistent and structured education to our patients with special emphasis on empowerment and lifestyle changes.

**Organizing the Chronic Conditions Care in Bahrain**

Chronic conditions management in Bahrain, in response to global initiatives, is experiencing a shift from a very sophisticated secondary care level to a team approach in which primary care plays a pivotal role. This shift has created debates and conflicts between both disciplines. Proper chronic condition care should utilize both disciplines with a steering committee supporting and guiding both primary and secondary care groups.

Statistics regarding readiness of the healthcare service to accommodate such huge shift in patients as well as the mentality of caregivers is deficient. Table 4 depicts the chronic disease capacity assessment declared by the non-communicable disease section in 2001, showing that the numbers of health personnel that are involved in managing chronic condition cases in Bahrain is low considering the high prevalence of chronic conditions[2].

**Table 4: Capacity Assessment Report for the Non-communicable Disease Section in 2001**

| **Category** | Count |
|---|---|
| No of General Practitioners and PHC physicians | 201 |
| No of Public Health professionals | 16 |
| No of Cardiologists | 4 |
| No of Oncologists | 8 |
| No of Internal medicine specialists | 62 |
| No of Radiologists and radiotherapists | 18 |
| No of Physiotherapists | 32 |

F, 33 years old gentleman was shocked to be diabetic with severe lipaemia. "I do not have any genuine symptoms, I did not lose weight and I am younger than what is recorded in my birth certificate. I don't deserve to get diabetes", he said.

When questioning him about his biggest fear from diabetes, he claimed that he would not be able to tolerate taking medication for the rest of his life.

F is not the only one; the long term impact of chronic disease on patients is evident in many aspects, including compliance, the concept of self management and drug acceptance[7].

Usually patients suffer more than one condition at a time. During my practice in 2006, I managed 1008 patient with long term conditions, 30% of whom had more than one chronic condition, see Figure 1. The impact of multiple morbidities is more drastic and demanding.

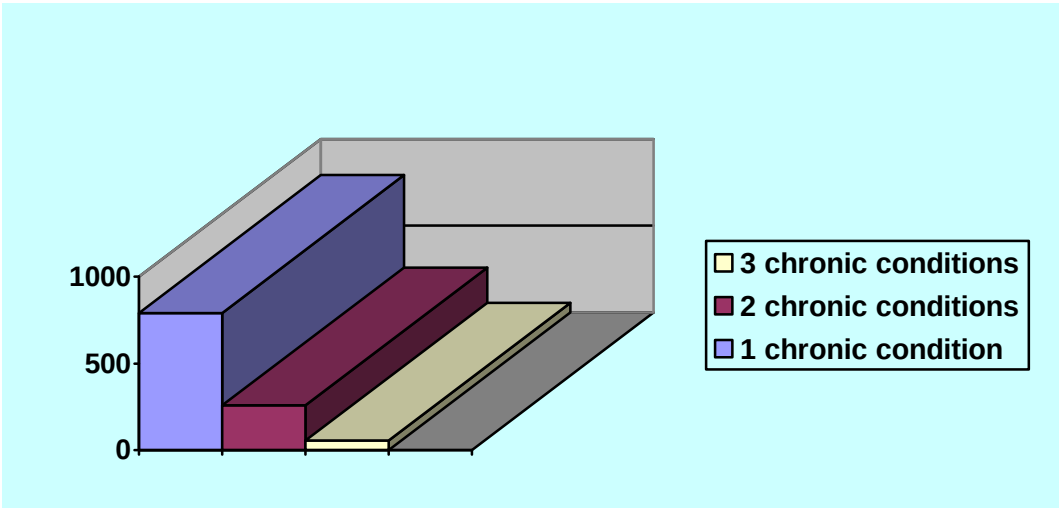


**Figure 1: Number of One or More Chronic Conditions in Small Practice in Bahrain**

**Identifying and Evaluating Chronic Conditions and Their Impact**

Patients with chronic conditions are usually identified through self reporting or screening[8]. In Bahrain, the chronic disease committee is establishing a head count registry that identifies patients with common chronic conditions by their ID numbers in the primary care sector in Bahrain. This is not an ultimate form of the registry but it is thought to be a way to record the number of patients with chronic conditions. It has the ability to provide the incidence, the prevalence and the mortality rate but not the level of control or the prevalence of complications. It cannot act as a monitoring and remedial tool at the moment.

I believe that our patients in Bahrain need and deserve more structured forms of evaluating the impact of long term conditions. The evaluation currently used in practice is sporadic, non-structured and aimless. I have found it very illuminating and bonding to practice the short form (SF-36) questionnaire on my patients[8].

**Supporting Self Management**

Self management is defined as "The tasks that individuals must undertake to live well with one or more chronic conditions. These tasks include having the confidence to deal with medical and emotional management of their conditions"[9].

Self management is an essential part in chronic conditions management. It entails involving the patients as partners and empowering them to take decisions concerning their management. It also entails equipping patients with the necessary information to handle their condition all day long and under different circumstances.

Mr EB is diabetic, hyperlipidemic and hypertensive patient. Mr EB believes he has seen it all and does not think that health professionals can offer him much. He manages his chronic problem by his own and attends sporadically to the clinic. "Just to make sure I am on the right track", he explains.

It was interesting and alarming to challenge his perception of health professionals as well as his perception of his disease. I thought to take it from where he stopped, so I talked to him about self-empowerment and educated self-management as a key to communicating with him. We agreed that he is a busy man and could not see me as much as needed. We agreed that he needed to exercise more often and of lesser duration. We also agreed that he could monitor his glucose at home and send me an e-mail with his results so that I could e-mail him back with whatever treatment changes necessary. After four months, his HbA1c improved, his weight decreased and his self confidence had been enriched by partnership and self empowerment.

## CONCLUSION

**Managing chronic conditions in Bahrain is a new theme that entails many changes in perception and behavior from health professionals, decision makers as well as the public. It calls for joint efforts from both medical and non-medical stakeholders to combat chronic diseases. Developing an infrastructure for service delivery is a must to improve the quality of the service.**

**There is a great urge for an integrated approach for providing a chronic condition management model that addresses the current dissociation between the primary and secondary sectors of the health care system.**

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