Screening Type 2 Diabetes: A Clinical Guide for Family Physicians

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Seyed Esmaeil Managheb, MD; Quality Improvement in Clinical Education Research Center, Education Development Center, Shiraz University of Medical Sciences, Postal code: +98-71-32347315, Shiraz, Iran **Tel:** +98-71-32122419, +989173125037 **Email:** managheba@sums.ac.ir Received: 3 May 2015 Revised: 23 May 2015 Accepted: 20 June 2015 Health care system is organized to achieve more efficiency as well as developing public equity and providing access to the first, second and third levels of services. Family physician is in the first line of the health care system; in other words, family physician is the health system's goalkeeper. According to classification of health services, gaining access to specialized services becomes possible through the referral system.¹

Referral system is a system in which the client should primarily refer to the family physician in order to gain access to health care services and be referred to a specialist if necessary. The specialist refers the patient to the family physician for following treatment modalities after doing necessary medical care and advice and recording the results in the feedback form.²

Despite the different levels of service delivery, the boundaries between these levels are not clear enough and have caused problems in the referral system. Certainly, for better implementation of family physician plan, empowering family physicians, clarifying the referral procedure, and localizing its components are of great importance. One of the life-long concerns of the Ministry of Health and Medical Education, especially Shiraz University of Medical Sciences, has been developing clinical guidelines to empower family physicians based on clinical referral system and local conditions of the country. Among effective measures in this field is preparing clinical guidelines, according to the level of services and in line with the referral system. The purpose of developing clinical guidelines is improving the quality of health care and increasing the patient's satisfaction through the following specific objectives:

- 1. Empowering family physicians
- 2. Clarifying different levels of health service delivery
- 3. Systematizing and facilitating the referral procedure
- 4. Reduce health care costs

To develop educational-practical guidelines, the first step was taken by conducting needs assessment by the family physician and setting priorities based on the results of the needs assessment. In the second stage, a detailed search was done in search motors including Google, Google scholar, PubMed, Scopus and sites Australian family physician (AFP), Institute for Clinical Systems Improvement (ICSI), Clinical Management Algorithms, American Family Physician, Scottish Intercollegiate Guidelines Network using the keywords: diabetes type 2, Guidelines, Algorithm and primary care. The guidelines for each subject were collected from authentic sources.

In the third step, authentic sources were selected using a detailed study of the guidelines and considering the educational conditions and the ability of family physicians, as well as first level services.

In the fourth stage, a model was prepared using these guidelines and in some cases several guidelines were merged to prepare a single, comprehensive guideline. In the fifth step, the guidelines were sent to the members of Scientific Committees of the Medical School, located in clinical groups. The guidelines were revised, updated and localized during the joint meetings. In the sixth stage, the related algorithm was redesigned based on the decisions made in the scientific committee meetings. Also, in the seventh stage, the prepared guideline was finally approved by the Scientific Committee and sent for publication.

Diabetes is a common chronic disease in IRAN



* Risk factors:	
- BMI > 25, overweight or obesity	
-Women who have delivered a baby weighing > 4.5 kg, Stillbirth, miscarriage, were diagnosed with GDM.	
 Women with polycystic ovarian syndrome. "Prediabetes" as defined by IFG (FPG=100-125), IGT (2hpp=140-199) on previous testing. 	
	CDM: Contributed diskates melliture
BMI: Body mass index	GDM: Gestational diabetes mellitus.
IFG: Impaired fasting glucose	IGT: Impaired glucose tolerance
BP: Blood pressure	HDL: High density lipoprotein
TG: triglycerides	FPG: Fasting plasma glucose



and its incidence and prevalence is increasing.³ Type 2 diabetes may remain asymptomatic for long periods of time before it is diagnosed. Obstacles to diagnosis include the complexity of screening tests (especially if oral glucose tolerance test is used), and non-referral of the patient in cases where fasting blood sugar is moderate, and the risk of the disease is underestimated by the patient.⁴

Early detection of Type 2 diabetes and metabolic control can reduce complications, improve quality of life, and reduce mortality.⁵ While being a challenge, specific behavioral and therapeutic interventions are necessary to achieve success in controlling the disease. Also, a proactive organizational approach is essential to implement this process. For sustainable implementation of the program for all patients, the need for a systemic approach to diabetes care in general practice is necessary.^{5,6} Diabetes mellitus type 2 Screening method in population is shown in Figure 1.

Conflict of Interest: None declared.

Please cite this article as: Managheb SE, Shams M, Soveid M, Imanieh MH, Moghadami M. Screening Type 2 Diabetes: A Clinical Guide for Family Physicians. J Health Sci Surveillance Sys. 2015;3(3):125-127.

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