Original Article

Waiting Time for Specialist Consultation in Tehran

Afsoon Aeenparast PhD¹, Faranak Farzadi MD PhD¹, Farzaneh Maftoon MD PhD¹

Abstract

Background: Waiting time is an important indicator of patient satisfaction and the quality of care. The aim of this study is to determine the waiting time in physician offices in Tehran, Iran.

Methods: This was a cross-sectional study. The target population of this study consisted of specialist and subspecialist offices in Tehran. We used a census sampling method to study the population. Data of 5475 physicians was extracted from data banks, of which 43.4% were not accessible. Thus 3098 cases were included and analyzed. We conducted telephone interviews to gather data, which was subsequently analyzed using SPSS software.

Results: Out of the 3098 physicians interviewed, 2585 were specialists (83.4%); the remaining were subspecialists. The mean waiting time for a patient's first visit to a specialist was 4.30 days (SD = 8.10) and for subspecialists it was 7.61 days (SD = 13.98).

Discussion: The average waiting time in our study was less than a week for specialists and almost a week for subspecialists. The health system in Iran has not established a complete referral system and with this situation, waiting time may have adverse effects on the health of patients. Thus studying and managing waiting time in some medical specialties or regions is a priority in our country.

Keywords: Clinic visit, medical specialties, outpatient care, waiting list

Cite the article as: Acenparast A, Farzadi F, Maftoon F. Waiting Time for Specialist Consultation in Tehran. Arch Iran Med. 2012; 15(12): 756-758.

Introduction

s an important determinant of patient satisfaction, waiting time has gained increasing attention in the field of health care services.1 Waiting time is a barrier for patient access to care and it is an important performance indicator of health systems. It is also an important measure of how well the health care system responds to patient needs.²⁻⁴ Waiting for care can lead to patient suffering, strained doctor-patient relationships, and significant patient dissatisfaction.⁵ However, there is no agreement on how to set wait time targets and prioritize wait lists.5,6

Defining waiting time and selecting its scope is the first step in determining and prioritizing waiting time. Different countries have studied waiting time using various definitions, which may differ with respect to their health system processes. The difference between countries, of course, is the amount of waiting time7 of which the main cause for differences lies in selecting the start and end point of the waiting time. These differences can result in dramatically different measurements for waiting times.⁸⁻¹⁰

Most studies have focused on three distinct waiting periods: waits to see the specialist, waits to receive hospital-based services, and total waiting time. In these studies the waiting time for specialist consultation has been defined as the time between the referral from the primary care practitioner to the consultation. In the early 1990s, this definition was introduced in the National Health Service in the United Kingdom to ensure the comparability of national waiting time statistics for specialist consultations. Specialist waiting times have also been defined as the time between the visit to the

•Corresponding author and reprints: Afsoon Aeenparast PhD, No. 23, Nazari St. Felestin St., P.O. Box: 13145-1756, Tehran, Iran. Tel: +98-21-66480804, Fax: +98-21-66480805, E-mail: Aaeenparast@ihsr.ac.ir

Accepted for publication: 14 August 2012

primary care physician and the specialist consultation. Other references define the waiting list as a list that patients are enrolled in once they opt to pursue an elective procedure, assuming that they cannot get this procedure performed immediately. They mentioned that "waiting time" or "wait time" for these patients is more difficult to define. A common definition is the length of time between when a patient is placed on a waiting list and when the service is received.9,10

The Singapore Ministry of Health define two types of waiting time as the key indicators of service quality at specialist outpatient clinics (SOC): waiting time for an SOC appointment and waiting time for an SOC consultation. The first is defined as the time period from booking the first appointment at the SOC to the actual appointment date, whereas the second is defined as the time from the patient registration at the clinic to the first contact with the doctor.¹¹

As waiting time definitions and measurements may differ from one health system to another, the reasons for long waiting times may differ as well. There are three main causes for long specialist waiting times, namely the nature of healthcare services, which are inherently variable and sometimes unpredictable; the shortage of public sector specialists in some areas to meet rising demand; and lack of discipline in adhering to an appointment system.¹¹ Wait time management has been studied in many contexts, such as radiation oncology, critical care, intensive care, limb arthroplasty, emergency department, and surgery. Many countries have tried to reduce wait times through formal wait time reduction strategies.^{3,5}

In publicly funded health care wait lists are commonly used to manage access to elective procedures, raising concerns about the delay in necessary treatment.12 However, in other healthcare systems, public involvement in wait time management efforts is very limited.3,13

This study aims to measure physician waiting time in different medical specialties and subspecialties in Tehran, Iran.

Authors' affiliation: 1Health Services Management Research Group, Mother and Child Health Research Center, Iranian Institute for Health Sciences Research, ACECR, Tehran, Iran.

	Specialist	Subanagialista		Doorson	
	Specialist	Subspecialists	Total	rearson	P-value
	N (%)	N (%)		Chi-square	
Sex					
Male	2017 (78.0)	444 (86.5)	2461 (79.4)		
Female	568 (22.9)	69 (13.5)	637 (20.60)	19.03	< 0.0001
Total	2585 (100.0)	513 (100.0)	3098 (100.0)		
Faculty member					
Yes	359 (36.9)	276 (53.9)	1229 (39.7)		
No	947 (36.7)	97 (18.9)	1044 (33.8)		
Unavailable	685 (26.6)	140 (27.3)	825 (26.5)	71.34	< 0.0001
Total	2585 (100.0)	513 (100.0)	3098 (100.0)		
Office geographical location					
North	843 (32.6)	237 (46.2)	1080 (34.9)		
South	90 (3.5)	4 (0.8)	94 (3.0)		
West	181 (7.0)	13 (2.5)	194 (6.3)		
East	348 (13.5)	39 (7.6)	387 (12.5)		
Center	1119 (43.3)	220 (42.9)	1339 (43.2)	50.22	0.0001
Unavailable	4 (0.2)	0 (0.0)	4 (0.1)	38.33	< 0.0001
Total	2585 (100.0)	513 (100.0)	3098 (100.0)		

Table 1. Characteristics of physicians.

	Table	2.	Waiting	time	for	first	visit.
--	-------	----	---------	------	-----	-------	--------

	Ν	Average waiting time in days (SD)	Median waiting time (days)	Range	<i>P</i> -value
Specialist	2585	4.3 (8.1)	2.0	0-120	
Subspecialist	513	7.61 (14.0)	3.0	0-150	< 0.0001
Total	3098	4.85 (9.42)	2.0	0-150	

Materials and Methods

This was a cross-sectional study. The target population of the study consisted of specialists and subspecialists who practice in Tehran. In this study we used the census sampling method. In order to prepare a list of physicians, we used data from two important physician data banks, the Islamic Republic of Iran Medical Council and the White Book. Information about 5475 physicians was extracted from these data banks. After telephone interviews, we determined that 313 cases were either retired, had immigrated, or were no longer alive. An additional 1921 cases were inaccessible, 135 cases did not accept new patients, and 8 cases refused to be interviewed. Thus, we included and analyzed 3098 cases. Some physicians had more than one clinic or office; in this case only one office was randomly selected.

Waiting time in this study was defined as the time between the call for registration and the appointment date. The criterion was the nearest date for visiting a new patient according to physician's waiting list.

The questionnaire consisted of ten questions: source of information, physician's name, physician's sex, office phone number, office address, type of specialty, faculty member, contact date, examination date, and number of other offices, clinics, and outpatient centers. We extracted the initial six questions from the data banks and the remainders of questions were completed by telephone interviews. A total of three staff members assisted with administering the questionnaire. All staff members were trained and used a uniform method for data gathering.

Most doctors' offices are open on weekday afternoons, thus phone contacts were made between 4–9 pm on all weekdays. When we were unable to establish contact, the calls were repeated on other working days and in the morning.

From July to December 2010, the data were recorded in the sheets after quality control. SPSS statistical software was used for data analysis.

Results

In this study, we interviewed 3098 physicians. Of these, 2585 were specialists (83.4%) and the remaining 513 were subspecialists (16.6%).

Study results showed that most physicians (79.4%) were male (78.0% for specialists and 86.5% for subspecialists). Faculty members comprised 39.7% of all physicians, of which 36.9% were specialists and 53.9% were subspecialists.

Analyzing the distribution of doctors' offices in Tehran showed that the concentration of offices was higher in center of the city for all physicians (43.2%). This information is summarized in Table 1.

The study findings show that the mean waiting time of patients for the first visit with specialists was 4.30 (SD = 8.10) days, with a median of 2.00 days. For subspecialists the mean was 7.61 (SD = 13.98) days and the median was 3.00 days. Comparison of means in these groups showed that waiting time for subspecialist first visits was statistically higher than for specialists (P < 0.0001; Table 2).

Discussion

The average waiting time in our study was less than a week for specialists and almost a week for subspecialists. More descriptive analyses showed that only 2% of specialists and 5% of subspecialists had long waiting lists (more than four weeks). A comparison of our findings with the estimation from other countries with public health care systems showed that patients in Tehran experienced less wait times.

For example, in 2003 and 2005 the Canadian self-reported waiting time was about four weeks for a specialist visit for a new illness or condition.¹⁴ The results of another survey in this field showed that in Canada nearly half (46%) of the patients had waited less than a month for their initial specialist consultation. An additional 40% waited one to three months, and 14% waited more than three months.^{9,10} Outpatient waiting list statistics of the Department of Health of England in 2008 showed that from all 876,327 patients waiting for their first outpatient appointment following a general practitioner referral, about 70% waited less than four weeks.¹⁵ The above statistics were obtained from countries with public health structures in which waiting times were a main problem in their health care systems. In these countries, general practitioners provide patients' care during their waiting time to be visited by specialist. If their situation worsened, patients could consult with a general practitioner and see a specialist sooner than the standard waiting period.¹⁶

Waiting time in countries with health insurance systems is less than in countries with public health. In a 2005 survey of very ill patients that was conducted in six developed countries, the United States and Germany had less waiting times to see a specialist than the United Kingdom, Canada, Australia, and New Zealand.¹⁷ In another study in the United States, cardiology, dermatology, obstetrics/gynecology, and orthopedic surgery waiting times were estimated. The study results showed that in all cities among all the specialties, the average wait was 20.5 days. Appointment wait times have increased on average by more than a week since the survey was last conducted in 2004.¹⁸

Studying waiting times in different health systems has shown that in systems with complete referral systems, at the first level, patients did not experience extended wait times for their first visit to a general practitioner or family physician. At this level patients were screened to detect if they had a critical disease such as cancer. This screening led to reduce the delay in patients' diagnosis and treatment.

In our health system patients are not supported by a referral system, thus waiting lists should be shorter in order to avoid the adverse effects of delayed diagnosis and treatment. Thus studying waiting times in different medical specialties and different regions would provide essential information that can give policy makers a more complete picture of the present situation and assist them to better plan and manage the health system.

Acknowledgment

This article is based on Rewiring specialists' and subspecialists' waiting lists in Tehran"research project. This study is funded by Iranian Academic Center for Education, Cultural and research (ACECR) and planed and implemented by Institute for Health Sciences Research (IHSR). The authors would like to thank every body that contributes in this study.

References

1. Chen BL, Li ED, Yamawuchi K, Kato K, Naganawa S, Miao WJ. Impact of adjustment measures on reducing outpatient waiting time in a community hospital: application of a computer simulation. *China Med J* (*Engl.*). 2010; **123**: 574 – 580.

- Lungen M, Stollenwerk B, Messner P, Lauterbach KW and Gerber A. Waiting times for elective treatments according to insurance status: a randomized empirical study in Germany. *Int J Equity Health.* 2008; 7: 1–7.
- Millin N. Performance report of west Gloucestershire Primary Care Trust Board. Available from: URL: www.westglospct.org.uk/boardnov04/item10i.pdf [Accessed 10 April 2010]
- Queensland Health. Policy framework for specialist outpatient services, es, Queensland government; 2004. Available from: URL: http://www. qphci.qld.gov.au/qphci_pdf/QPHCI_Exhibit328-12.pdf [Accessed 12 April 2012]
- Bruni RA, Laupacis A, Levinson W, Martin DK. Public views on a wait time management initiative: a matter of communication. *BMC Health Serv Res.* 2010; 10: 228 – 237.
- Canadian Medical Association. The taming of the queue: toward a cure for health care wait times, Discussion Paper July 2004. Available from: URL: http://www.rehabmed.ualberta.ca/spa/LTC_Waitlists/tame.pdf [Accessed 2 January 2011]
- Chua KP, Rutledge J. Waiting Lists in Canada: Reality or Hype? 2005. Available from: URL: http://www.amsa.org/studytours/WaitingTimes_ primer.pdf [Accessed 11 August 2012]
- Kisken T. Waiting time doesn't mesh in different Ventura county ERs. Available from: URL: http://www.vcstar.com [Accessed 10 October 2011]
- O'Neill BJ, Brophy JM, Simpson CS, Sholdice MM, Knudtson M, Ross DB, et al. General commentary on access to cardiovascular care in Canada: Universal access but when? Treating the right patient at the right time. *Can J Cardiol.* 2005; 21(14): 1272 – 1276
- Carrière G, Sanmartin C. Waiting time for medical specialist consultations in Canada, Statistics Canada; 2007. Available from: URL: http:// www.statcan.gc.ca/pub/82-003-x/2010002/article/11144-eng.htm#a3 [Accessed 24 November 2011]
- Waiting times in specialist outpatient clinics of restructured hospitals and specialty centers, Ministry of health, Singapore; 2007. Available from: URL: http://he.ecitizen.gov.sg/content/dam/he_ecit/pdf/OP_on_ Waiting_Times_for_New_SOC_Appointments.pdf [Accessed 24 November 2011]
- Levy AR, Sobolev BG, Hayden R, Kiely M, FitzGerald JM, Schechter MT. Time on wait lists for coronary bypass surgery in British Columbia, Canada, 1991 – 2000. *BMC Health Serv Res.* 2005; 5: 22 – 32.
- Lewis S, Barer ML, Sanmartin C, Sheps S, Shortt SED, McDonald PW. Ending waiting-list mismanagement: principles and practice, *Can Med Assoc J.* 2000; **162(9):** 1297 – 1300.
- WillCox S, Seddon M, Dunn S, Edwards RT, Pearse J, Tu JV. Measuring and reducing waiting times: a Cross-National Comparison Of Strategies, *Health Affairs*. 2007; 26(4): 1078 – 1087.
- Department of Health. Commissioner based hospital waiting times for 1st outpatient appointment, Quarter 2 2008/09, United Kingdom. Available from: URL: http://www.performance.doh.gov.uk/waitingtimes/ [Accessed 24 November 2011]
- Sanmartin C. Toward Standard definitions of waiting times for health care services. *Health Care Management Forum*. 2003; 16(2): 49-53.
- The commonwealth Found. International comparison: access and timeliness. Available from: URL: http://www.commonwealthfund.org/Performance-Snapshots/International-Comparisons/International-Comparison--Access---Timeliness.aspx [Accessed 24 November 2011]
- Thompson E. Waiting times to see doctor are getting longer. USA Today. 2009. Available from: URL: http://www.usatoday.com/news/ health/2009-06-03-waitingtimes_N.htm [Accessed 24 November 2011]