

Outpatient Services during (1423h) Hajj Season

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خدمات العيادة الخارجية خلال موسم الحج (١٤٢٣ للهجرة)

المخلص: الهدف: دراسة و تحليل نوع المرضى الذين راجعوا قسم العيادة الخارجية خلال موسم الحج لسنة ١٤٢٣ للهجرة فيما يتعلق بالجنس، الجنسية، والخدمات المقدمة، والأكثر أهمية من ذلك نزع الأمراض ونوع العلاج. **الطريقة:** أجريت هذه الدراسة الوصفية في قسم العيادة الخارجية في مستشفى النور التخصصي بمكة المكرمة خلال فترة الحج البالغة ١٥ يوما. أي من ١-١٥ / ١٢ / ١٤٢٣ للهجرة الموافق من ٢-١٦ / ٢ / ٢٠٠٣. كل المرضى الذين قدموا إلى العيادة الخارجية سواء كانوا من الحجاج أو من غيرهم والذين سجلوا في تلك العيادة شكلوا مادة هذا البحث. سجلنا المتغيرات المتعلقة بالعمر والجنس والجنسية والعيادة التي تم زيارتها والتشخيص والعلاج في الاستمارة الزرقاء -القياسية- المجهزة من قبل وزارة الصحة سنويا والمحخصة فقط لأقسام العيادة الخارجية في مواسم الحج. **النتائج:** أظهرت النتائج أن ٣٨٧٦ مريضا زاروا المستشفى وأن ٣٨٥٦ سجلوا في العيادة الخارجية. من هؤلاء المسجلين ١٢٨٢ (٣٣٪) كانوا من الحجاج. منهم ٨٧٣ (٢٢٪) من الذكور. معظم المرضى الحجاج من غير السعوديين (٣٠.٨٪). والغالبية من دول الشرق الأوسط -٣٨٤- (٢٦.١٪). كان مدى العمر الأكثر انتشارا (٢٤٠ مريضا - ٢٢٪) بين ٥١-٦٠ سنة. حصلت العيادة الخارجية للأمراض الباطنية على أكبر عدد من المرضى (١٦٧٥ مريضا - ٤٣.٤٪). بينما كانت حالات الجهاز التنفسي الأكثر انتشارا (١٥٨٢ - ٤١٪). العلاج بدواء واحد كان الأكثر شيوعا (٣٦٤٤ - ٩٤.٥٪). الخلاصة: كانت غالبية المرضى الذين زاروا العيادة الخارجية من غير الحجاج. وليس غريبا أن نسبة المراجعين السعوديين إلى غيرهم ١:٨. الأمراض التنفسية كانت الأكثر انتشارا من غيرها. الأدوية الأكثر وصفا هي المضادات الحيوية. فقط ٥.٥٪ من المرضى استخدموا أكثر من دواء. لهذا السبب نوصي أن تكون الخدمات في موسم الحج مخصصة للحجاج فقط. أما غيرهم من السعوديين أو غير الحجاج فالأفضل مراجعة المراكز الصحية الأولية لعلاج الحالات الخفيفة. هذا سيساعد من وجهة نظرنا إلى التخفيف عن كاهل المستشفيات الكبيرة التي تقدم الخدمات على مدار الساعة وهذا ما سينعكس إيجابا على كفاءتها في تقديم الرعاية المطلوبة.

ABSTRACT Objective: To analyse the pattern of patients attending the Out Patient Department (OPD) during the Hajj season 1423H with respect to their age, sex, nationality, services provided to them, and most importantly the disease trends and the medication given. **Method:** A descriptive study was done at the OPD department in Al-Noor Specialist Hospital, Holy Makkah for the 15 days period of the Hajj, i.e., 1-15 / 12/1423 corresponding to 2-16 / 02/2003. All patients who arrived at the OPD during that time whether on Hajj or non-Hajj and those who registered at OPD service became part of our study. With the help of standard "Blue Form" (provided annually by Ministry of Health exclusively for the OPD patients for every Hajj season), their age, sex, nationality, clinics attended, diagnosis and medications were noted. **Results:** The results revealed that 3876 patients arrived and 3856 got registration at OPD. Of the registered cases, 1282 (33%) were Hajj patients and of those 873 (22%) were males. The Hajj patients were mostly non-Saudi (30.8%). The majority of patients, 384 (26.1%), were from the Middle East. The largest category, 240 (6.2%), of Hajj patients were in the age range 51-60 years. The medical clinic was the one attended by the maximum number of patients, 1675 (43.4%), and respiratory disease cases, 1582 (41%), were the commonest. Single medication as monotherapy accounted for 3644 (94.5%) of patients. **Conclusion:** Non-Hajj patients were in the majority at OPD. Respiratory diseases were the commonest complaints. This study highlights a precarious situation during the Hajj where cross-infection proliferates in a dense population. Effective services and preventative measures need to be contemplated in the light of the present finding.

Key Words: Hajj, Hajj season, Out Patient Department (OPD), Ministry of Health (MOH), Antibiotics.

HAJJ IS A ISLAMIC PILGRIMAGE OF MUSLIMS, when around two million muslims gather for a period of about six weeks between the Holy cities of Makkah and Medina in Kingdom of Saudi Arabia (KSA).¹ The Hajj season is the time of maximum population in every sector of life in Saudi

Arabia especially the Holy Makkah region. The medical services are one of the most affected sectors of the administration of the Holy Capital. As Hajj has to be completed in a specified period of time, and many of the pilgrims use their lifetime savings for this purpose, they are often reluctant to seek early medical advice as

Table 1. Demographic data of 3856 registered outpatients during Hajj 1423H

Characteristics	Hajj patients		Non-Hajj patients		Total		
	n=1282	%	n=2574	%	n=3856	%	
Sex	Male	837	22	1536	40	2373	62
	Female	445	11	1038	27	1483	38
Nationality	Saudi	38	1	2175	56.4	2213	57.4
	Non Saudi	1191	30.8	281	7.3	1472	38.2
	Unknown	53	1.4	118	3.1	171	4.4
Age in Years	<1	1	0.0	34	0.9	35	0.9
	1-25	150	3.9	1020	26.5	1170	30.3
	26-30	104	2.7	386	10.0	490	12.7
	31-35	134	3.5	154	4.0	288	7.5
	36-40	161	4.2	247	6.4	408	10.6
	41-45	190	4.9	289	7.5	479	12.4
	46-50	194	5.0	197	5.1	391	10.1
	51-60	240	6.2	146	3.8	386	10
	61-65	71	1.8	81	2.1	152	3.9
>65	37	1.0	20	0.5	57	1.5	

* Age groups confined to "Blue Form" officially

this might affect their tight time schedule. When they do seek medical advice, they are always in a hurry to leave the hospital so as to avoid missing any of the Hajj rituals.^{2,3} so the percentage of illnesses increases during the Hajj season. Even the KSA residents who are not performing the Hajj also suffer perhaps due to the population increase and cross-infection.

METHOD

Al-Noor Specialist Hospital is one of the largest and most renowned tertiary care hospitals in the Western

Table 2. Regional distribution of Non Saudi, Hajj & non Hajj Outpatients during Hajj season 1423H

Regions of the world	Hajj pts		Non-Hajj pts		Total	
	n	%	n	%	n	%
Middle East	384	26.1	58	3.9	442	30.0
Subcontinent	268	18.2	142	9.6	410	27.9
South East Asia	147	10.0	49	3.3	196	13.3
Arabian Gulf	190	12.9	5	0.3	195	13.2
Sub Sahara	120	8.2	25	1.7	145	9.9
Former Soviet Union	41	2.8	1	0.1	42	2.9
Western Countries	41	2.8	1	0.1	42	2.9
Total	1191	80.9	281	19.1	1472	100

region of the KSA. This study was conducted in the OPD of Al-Noor Hospital for a period of 15 days i.e., 1st of Dhu Al-Hijjah 1423 Hejre to 15th of Dhu Al-Hijjah 1423 Hejre (2-16 February 2003). All the cases either coming directly or referred from other primary or secondary health care units to OPD were included. The data was collected from the standard "Blue Form" which was provided annually by Ministry of Health (MOH) for every season. These forms were collected, the data was processed and then analyzed on a daily basis. The information includes the age, sex, nationality, diagnosis, referred clinic and the prescribed medications.

RESULTS

Approximately 3876 patients arrived at OPD for that period of Hajj and 3856 patients got registrations. Only 20 (1%) were not registered because these patients could not get the standard "Blue Form" or for some other reason. Thus we interpreted the data of registered OPD (n=3856) patients. Table 1 shows that, of 3856 patients, 1282 (33%) were Hajj patients and 2574 (67%) were non Hajj patients. Among the Hajj patients 837 (22%) were males and 445 (11%) patients were females showing the ratio of 2:1 respectively. In non Hajj patients, males dominate over females (1536 (40%) males, and 1038 (27%) females). The OPD pa-

Table 3. Hajj & non-Hajj Outpatients in different clinics during Hajj season 1423H

Clinics attended by pts	Hajj Patients		Non-Hajj Patients		Total	
	n	%	n	%	n	%
Medical	636	16.5	1039	26.9	1675	43.4
Ear, Nose and Throat	148	3.8	245	6.4	393	10.2
Orthopedic	148	3.8	159	4.1	307	8.0
A.K.U	126	3.3	573	14.9	699	18.1
Dermatology	78	2.0	108	2.8	186	4.8
General Surgery	58	1.5	82	2.1	140	3.6
Dental	39	1.0	81	2.1	120	3.1
Obstetric	23	0.6	38	1.0	61	1.6
Paediatric	17	0.4	229	5.9	246	6.4
Psychiatric	9	0.2	20	0.5	29	0.8
Total	1282	33.2	2574	66.8	3856	100

tients’ nationality question revealed that 2213 (57.4%) were Saudi. Among the Saudia, 38 (1.0%) were Hajj patients and 56.4% were non Hajj patients, whereas in non-Saudi patients 1191(30.8%) were Hajj patients and 2819 (7.3%) were non Hajj patients. The age of the patients was recorded according to the age groups in the “Blue Form”. Among the Hajj patients, the largest category, 240 (6.2%), was in the age group 51-60 and among the non-Hajj patients the majority, 1020 (26.5%), were in the younger age group 1-25, as shown in Table 1.

The nationalities of non-Saudi cases were classified

into seven groups according to geographical zones: Middle East, Indo-Pak subcontinent, South East Asia, Gulf and Arabian Peninsula, African countries, Western countries and Russian states. The majority, 442 (30%), were from the Middle East as shown in Table 2.

Table 3 presents the different clinics attended by Hajj and non-Hajj patients. The maximum load was on the Medical clinic with 1675 (43.4%) patient visits and the least burden was on the Psychiatry clinic.

As to the diseases or diagnoses found, the largest number of patients came with respiratory diseases, 1582 patients (41%), and the smallest number with diseases of the ear and mastoid process, 67 patients (1.7%). There were 21 groups of diagnosis according to the CD 10 coding system. The ten diagnoses with more than 1% patients are shown in Table 4.

Last but not least, the medications given by the OPD doctors were also noted. The medicines recommended in the “Blue Form” provided by the Ministry were dispensed. The data collected for medication revealed that 3644 (94.5%) patients used medicine as a single therapy. Looking into individual medicines, the most commonly used were antibiotics and then analgesics in descending order as shown in Table 5. The remaining 5.5% patients were using medicines in combination of two or more than two drugs.

DISCUSSION

Our study was of short duration and restricted to OPD but it gives a reflection of the pattern of patients dur-

Table 4. Outpatients according to diagnosis during Hajj season 1423H

SN	ICD-10 Codes	Diagnosis	Hajj pts		Non-Hajj pts		Total	
			n	%	n	%	n	%
1	J00-J99	Diseases of respiratory system	570	14.8	1012	26.2	1582	41.0
2	N00-N99	Diseases of genitourinary system	115	3.0	635	16.5	750	19.5
3	S00-T98	Injury, poison & certain other consequences of extra cause of death	113	2.9	113	2.9	226	5.9
4	L00-L99	Diseases of skin & soft tissue	99	2.6	174	4.5	273	7.1
5	K00-K93	Diseases of Gastro Intestinal Tract	92	2.4	169	4.4	261	6.8
6	M00-M99	Diseases of musculoskeletal syst & connective tissue	83	2.2	93	2.4	176	4.6
7	R00-R99	Symptoms, Signs & Clin/Lab findings not elsewhere classified	60	1.6	92	2.4	152	3.9
8	I00-I99	Disease of circulatory system	35	0.9	86	2.2	121	3.1
9	A00-B99	Infectious & parasitic diseases	26	0.7	63	1.6	89	2.3
10	H60-H95	Disease of ear & mastoid process	19	0.5	48	1.2	67	1.7
		Diagnosis with < 1% cases	70	1.8	89	2.3	159	4.1
		Total	1282	33.2	2574	66.8	3856	100

Table 5. The most common medications dispensed during the Hajj

SN	Names of drug categories	Single Therapy	%
1	Antibiotics	1669	43.3
2	Analgesics and Anti-pyretics	972	25.2
3	Medication for *(IHD , CRF, CNS disorder)	610	15.8
4	Miscellaneous drugs, Medications other than for IHD, CRF&CNS disorders	393	10.2
Total		3644	94.5

IHD Ischemic Heart Disease
 CRF Chronic Renal Failure
 CNS Central nervous system disorder

ing the Hajj season. It is based on a standard form provided officially. It highlights the personal as well as the hospital data of each patient. It displays the services of Al-Noor Hospital for Hajj pilgrims that could be compared with other hospitals in Makkah. It also gives us a picture of different nationalities of Hajj patients, male dominance and also the dominance of non-Hajj patients over Hajj patients especially on different clinics of OPD. The age group 51-60 years of Hajj patients correlates to the fact that Muslims from most of the nationalities perform Hajj after fulfilling their liabilities, such as marriages of their daughters etc. There were more patients from Middle East, compared to other regions of the world, due to its closeness to Holy Makkah. Our study highlights the percentage of various medical problems as compared to other studies.^{4,5,6} Up to twenty years ago, cholera was the main cause of morbidity and mortality among pilgrims.⁷ Even recently, gastroenteritis was responsible for 76% of hospital admission.⁸ Now pneumonia infection in patients needs hospitalization.⁹ This time

the Hajj occurred during winter so our study shows a large number of respiratory illnesses. Unfortunately, the data only shows the number of respiratory illnesses, not the specific diseases of the respiratory system. Among medications most commonly used were the antibiotics that reflect the preponderance of respiratory cases. This finding should be taken into account for future Hajj.

ACKNOWLEDGEMENTS

We are eternally grateful for the services of female staff (Umairah, Fatima, Nur Insan, Merly and Jerinia) from the Medical Records Department.

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