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Saudi Epidemiology Bulletin

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Mumps outbreak at three International schools in the Eastern region 2009 (1430 H).

On Sunday 5/4/2009, the Preventive Medicine Department of the General Health Directorate of Eastern region reported an unusual increase in the number of Mumps cases, reported from three international schools in the region. The Eastern province is the largest Province of Saudi Arabia, located in the east of the country on the Arabian Gulf coast. It has an area of 710,000 km2 and a population of 3,360,157 (2004 census). Khobar and Jubail are two of the biggest cities in the province; the outbreak was at 3 international schools in the region (2 in Khobar and 1 in Jubail). The Field Epidemiology Training Program (FETP) was assigned to verify and investigate this outbreak and recommend control measures.

First, a descriptive cross-sectional study was conducted on the reported Mumps cases, followed by a case-control study. A case was defined as any person associated with one of the 3 international schools who had developed illness with acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland(s) lasting at least 2 days, with fever, with or without serological confirmation during the period from 1/12/2008 to 4/5/2009. Controls were randomly selected class mates of cases, who had not developed any symptoms during the same time period.

The total number of cases reached 59 since the beginning of 2009. Of these, 53 (89.8%) were from one school (International Indian School in Khobar), 4 were from Almuatasim International School in Jubail and 2 from New World International School in Khobar. The nationality of most of the cases was Indian 52 (88.1%); 53 cases (89.8%) were males and 6 (10.2%) were females. Class distribution of cases showed that 36 (64.3%) were in grade 10, 14 (25%) were in grade four, and the rest were in different classes. Regarding age distribution of cases, 6 (10.2%) were eight years or less, 12 (20.3%) were between 9-12 years old, 38 (64.4%) were between 13-16 years, and three (5.1%) were 17 years and above.

Almost all cases had developed cheek swelling, 21 (35.6%) unilaterally and 37 (62.7%) bilaterally. Other symptoms were fever 48 (81.4%), cough 8 (13.6%), coryza 3 (5.1%), and headache 28 (47.5%); 53 cases (89.8%) had sought medical

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treatment at clinics or hospitals. One case had positive IgM but no symptoms. Complications occurred among 11 cases (18.6%).

Time distribution of Mumps cases showed that the outbreak began on 26/12/2008 when symptoms appeared on the index case. The next case appeared five days later with clear contact history with the index case. This was followed by an increase in the number of reported cases, showing a propagating type of outbreak. (Figure 1).

Thirty eight cases (64.4%) had been vaccinated, 15 (25.4%) had not been vaccinated and 6 (10.2%) did not know.

A total of 153 persons were included in the case control study, 59 (38.6%) cases and 94 (61.4%) controls. The International Indian School in Khobar had the highest number of cases 53 (89.8%). Schools were not significantly associated with infection (P-value=0.70), neither was age (P value=0.80), nationality (OR 1.3, 95% CI= 0.45-3.84, P-value= 0.60), gender (OR=1.05, 95% CI= 0.36-3.06 for males, P value= 0.93), history of contact with a mumps case (OR= 1.57, 95% CI =0.68-3.67, P-value= 0.25), nor history of travel in the 2 weeks before symptoms appeared (OR= 3.79, 95% CI= 0.64-28.75, P-value= 0.09).

The only significant risk factor of infection was vaccination status, which was higher among controls (64.4% of cases compared to 86.2% of controls). After exclusion of those who did not know their vaccination status, an OR of 0.13 was calculated, showing a protective association against infection (95% CI= 0.03-0.44, P value <0.01).

Among all cases and controls, 44 individuals (28.8%) had the serological test for Mumps; among 32 cases who had the test, 26 (81.3%) had positive IgM results. All controls (100%) had a negative IgM result. Over half of the positive IgM cases, 14 (53.8%), were in the 13-16 years old age group.

The first case in this outbreak (index case) was a Srilankan teacher working at Almuatasim International School in Jubail, who had arrived from vacation in her country two weeks earlier. Propagation of infection between schools came later on by direct contact between some of the students of Almuatasim International School and the International Indian School in an evening course that was held in Khobar on January 1, 2009.

- Reported by: Dr. Sami Al Mudarra, Dr. Mohammed Al Mazroa (Field Epidemiology Training Program).

Editorial notes: Mumps or epidemic parotitis is an acute communicable viral disease of humans, characterized by fever and painful swelling of one or both parotid glands. It spreads from person-to-person by contact with respiratory secretions such as saliva from an infected person. It can also spread by sharing food, drinks, and kissing. Mumps is caused by infection with the mumps virus, a single-stranded RNA virus and a member of the family Paramyxoviridae, genus Paramyxovirus. After entry into the oropharynx, viral replication occurs, causing subsequent viremia and involving glands or nervous tissue. The virus may be isolated from saliva, blood, urine, and cerebrospinal fluid.[1,2]

The disease is generally self-limited, within seven days, with no specific treatment. The incubation period is 16-19 days, and mumps is communicable from six days before to nine days after facial swelling is apparent. However, 30% of infections are subclinical. Symptoms mostly consist of fever, headache, and malaise. Within 24 hours, one or both parotid glands begin to enlarge; 70-80% of cases are bilateral. The swelling is usually associated with pressure pain and may require as long as 10 days to subside. As a complication of mumps, approximately one third of post-pubertal male patients develop unilateral orchitis. Bilateral orchitis occurs much less frequently, and although gonadal atrophy may follow orchitis, sterility is rare. Other Complications may occur like acute encephalitis, oophoritis, and myocarditis.[1,2]

Mumps remains endemic in many countries throughout the world, and the vaccine is used in only 57% of countries that belong to WHO, predominantly in developed countries. In the United States, with the introduction of 2 doses of MMR vaccine in the 1990s, mumps cases substantially declined from 5,292 in 1990 to 266 in 2001 and 231 in 2003.[3]

Mumps outbreaks usually occur among susceptible individuals; this could be attributed to primary vaccine failure, e.g. impotent vaccine, improper vaccine storage and improper administration techniques, waning immunity e.g. lack of continuous antigenic stimulation, or accumulation of unimmunized persons or children too young to be immunized. However, more than 95% of children who receive MMR vaccine develop long lasting immunity that may be lifelong.[4]

In 1991, Saudi Arabia started requiring mandatory MMR vaccinations for preschool populations. Since the introduction of MMR vaccination,

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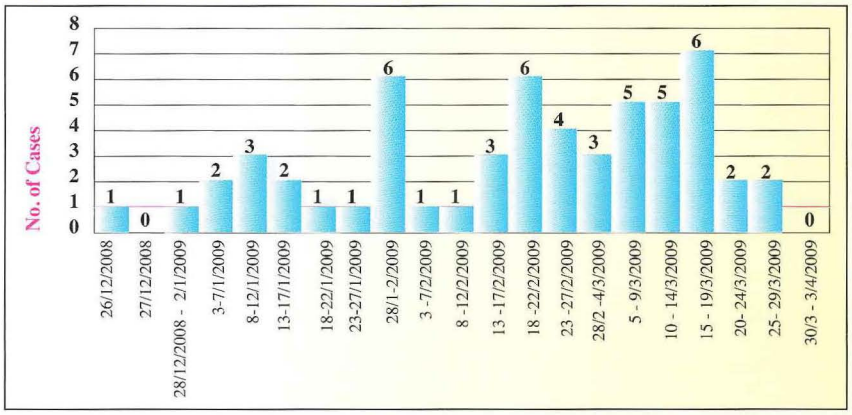
Figure 1: Epidemic curve of Mumps outbreak, Khobar and Jubail, 2009.



Risk factors for relapses and recurrent admissions of schizophrenic patients, Abha Psychiatric Hospital, Abha, July 2007 - July 2009.

Schizophrenia is a mental disorder characterized by abnormal perception and expression of reality. Relapses and recurrent admissions are common as a result of certain risk factors, such as poor compliance to medication, comorbidity with drug abuse, stressors, nature of the disorders, among others. Fortunately, most of these risk factors are controllable and relapses can be delayed or minimized.

This cross sectional study was conducted at Abha Psychiatric Hospital (APH), the only governmental hospital specialized in management of psychiatric disorders in Abha and nearby villages and towns. It has a 100-bed capacity. The objectives of the study was to investigate the risk factors responsible for relapses and recurrent admissions of schizophrenic patients in order to provide recommendations for possible solutions for their prevention and control. Data was collected by review of medical records. The sample included all schizophrenic patients who had been admitted into the hospital three times or more per year, in the period from July 2007 to July 2009.

A total of 140 schizophrenic patients met the inclusion criteria. Their age ranged from 17 to 60 years (mean 38 ±10). The highest age group was between 36-45 years old (47.1%). All patients were Saudis; 98 (70.0%) were males and 42 (30.0%) were females. The age of onset of schizophrenia ranged between 15-34 years (mean 22.4 ± 4.5). The majority of relapsing schizophrenics were males; in the age group 36-45 years (mean 38 ±10). Most were single, never married (58.6%), with poor educational level (31.4% illiterates and 40.0% primary school level). The number of times of readmission into hospital in the previous 2 years as a result of relapses were 3 times (22 patients 15.7%), 4 times (36 patients 25.7%), 5 times (17.1%), and 6 times and above (58 patients 41.4%). Average durations of hospitalization is demonstrated in Figure 1.

The most common reasons for relapses and readmission were poor compliance to treatment followed by comorbidity of substance abuse. The majority (78.6%) had been readmitted for the first time as a result of poor compliance to treatment, followed by comorbidity of substance abuse (15.7%). Reasons for the second readmission were also poor compliance to treatment (64.3%), followed by substance abuse (18.6%). Reasons for the third readmission were also poor compliance to treatment (62.9%), followed by substance abuse (22.9%).

Twenty four percent of patients were on old generation antipsychotic tablets only, 74.3% were on depot of long acting antipsychotics besides the tablets, and only 1.4% was on new generation antipsychotic tablets as pre-lapse medication. Discharge medication of old generation antipsychotic tablets was given to 2.9% of patients, old antipsychotic tablets with depot injection to 48.6% and new antipsychotics tablets with depot injection to 32.9%. Patients on atypical antipsychotic tablets with depot long acting injections of typical antipsychotics as a treatment in the post-relapsing stage were found to have fewer relapses.

-Reported by: Dr. Hassan Mohammed Al Shaiban, Dr. Mohammad Al Mazroa (Field Epidemiology Training Program).

Editorial notes: Schizophrenia is a social, economic and health burden on patients' families, the community and the ministry of health of any country.[1] Many intervention programs have been designed worldwide to prevent relapses of schizophrenic patients.[2] A study conducted in New York, USA, showed that crises intervention by increasing antipsychotic medication through a program for relapse prevention among schizophrenics applied to detect prodromal symptoms of relapse was very effective in reducing relapses and re-hospitalization.[3]

Some psychiatric patients stay in the hospitals for months or even years for social reasons, thus permanently occupying hospital beds, causing the bed capacity of a psychiatric hospital to be actually lower that it should. The turnover in such hospitals is faster for some patients in order to cope with others who are in need for admission. A policy implemented in some psychiatric hospitals, known as 'premature discharge', allows the hospital to discharge some patients if they were partially improving on psychiatric medication if there were no vacant beds in order to be able to admit others.

Poor compliance or non-adherence to antipsychotic medication in addition to comorbidity with substance abuse were the most common risk factors of relapses and frequent readmissions. Stressful life events, short stay of hospitalization, and residing close to the hospital also contributed to readmission

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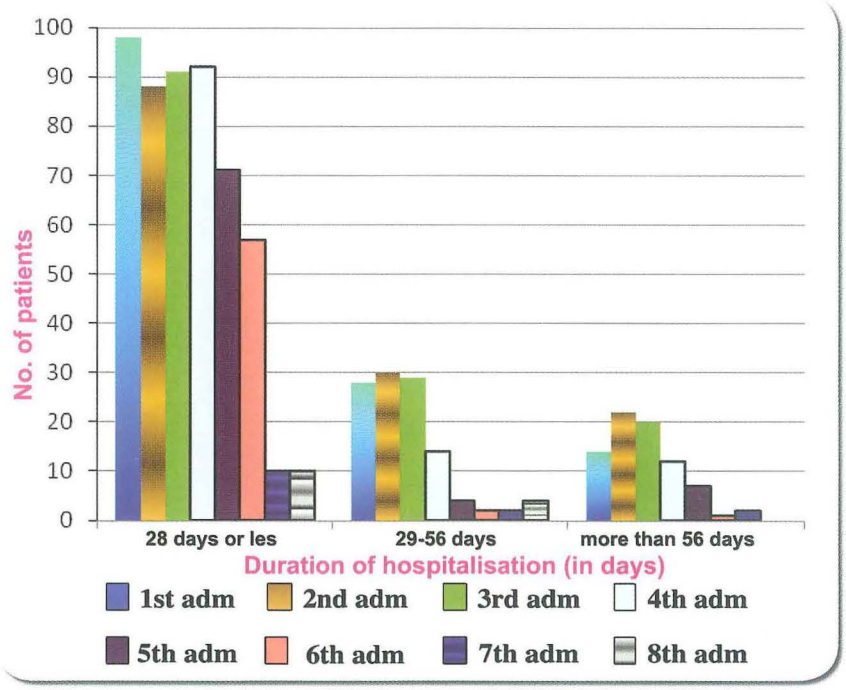
Figure 1: Average duration of hospitalization of schizophrenic patients at Abha Psychiatric Hospital, KSA, July 2007-2009.



Factors affecting primary health care services utilization by Hajjis, 1430 H.

Saudi authorities provide free 24 hours health services for hajjis through primary health care services and hospitals to ensure a safe and healthy environment during hajj. This study aims at identifying factors affecting primary health care services (PHCS) utilization by international hajjis during hajj season 1430 H.

We conducted a cross-sectional survey among international hajjis in Mina using a self-administered questionnaire. Four nationalities were identified as the target population of this study; Egyptians, Pakistanis, Indonesians and Turkish. The rational of choosing these nationalities was based on previous observation that Egyptian and Pakistani nationalities were frequent users of PHCS during hajj, while the Indonesian and Turkish used them less commonly. Sampling was done by stratified random cluster sampling technique. The questionnaire was translated to the languages of the targeted nationalities.

Out of 600 respondents, 55.3% were males, the majority was of age group 41-60 years (60.7%); 56.8% were below university level of education, and 84.6% were performing Hajj for the first time. Almost a third of the study participants (30.8%) reported suffering from a chronic disease, of whom 34% were suffering from Diabetes Mellitus and 30.8% Hypertension. 54.9% knew the location of the closest PHCCs, 35.9% knew the exact opening hours, while 39.4% reported having health services provided in their camps.

Around 30% of participant hajjis had become sick during their stay in Mina, Muzdalefa, and/or Arafat, 10.9% had sought PHCS, and the majority (73.4%) visited the primary health care center (PHCC) only once. Visiting PHCC was higher among Pakistanis (21.1%) followed by Egyptians (16.0%) as compared to Turkish and Indonesians (3.3% each), which was statistically significant ($P < 0.001$). (Table 1)

Nearly three quarters (74.6%) reported that there was no language barrier when dealing with PHCC staff, and 63.1% were completely satisfied with the health care services provided.

Among those who didn't visit a PHCC, the reasons stated were not getting sick (60.3%), having medical services provided in their camps (16.7%), unawareness of the location of PHCC (16.7%) and language barrier (14.0%).

Statistically significant factors affecting PHC service utilization were female gender (p-value 0.004), having chronic illnesses (p-value 0.01), knowing the location of the centers (p-value < 0.001) and having moderate to severe illnesses (p-value 0.016).

- *Reported by: Dr. Hasan Matar Alotaibi, Dr. Ibrahim Kabbash (Field Epidemiology Training program).*

Editorial notes: Every year more than 2 million Muslim pilgrims travel to Makkah for Hajj. Those hajjis are from different nationalities, cultures, languages, ages, education levels and health status. Traditional beliefs, personal habits, educational background may lead to unhealthy behaviors that can make Hajjis more susceptible to illness.[1,2]

A variety of factors may cause poor utilization of health care services such as poor socio-economic status, low education level, in addition to cultural beliefs and practices which affect awareness and recognition of severity of illness. Other factors that cause poor utilization of health care services are related to the health care system itself, such as

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Table 1: Distribution of studied hajjis by their knowledge about PHCC and medical history during their stay in Mina.

Characters	Egyptian		Pakistani		Indonesian		Turkish		Total		P value
	n	%	n	%	n	%	n	%	n	%	
Knowing the location of the centers (n=597)											
Yes	61	40.7	80	53.3	76	51.0	111	75.0	**328**	**54.9**	<0.001
No	89	59.3	70	46.7	73	49.0	37	25.0	**269**	**45.1**	
Knowing opening hours (n=590											
8 hours	1	0.7	1	0.7	5	3.4	8	5.5	**15**	**2.5**	
12 hours	1	0.7	1	0.7	3	2.1	6	4.1	**11**	**1.9**	
24 hours	42	28.0	38	25.5	60	41.4	72	49.3	**212**	**35.9**	<0.001
Don't know	106	70.7	109	73.2	77	53.1	60	41.1	**352**	**59.7**	
Time required to nearest center (n=592)											
< 10 minutes	38	25.3	62	42.2	39	26.9	36	24.0	**175**	**29.6**	0.002
10 - 30 min.	10	6.7	12	8.2	20	13.8	48	32.0	**90**	**15.2**	
31 min. - 1 hour	2	1.3	0	0.0	5	3.5	5	3.3	**12**	**2**	
> 1 hour	2	1.3	0	0.0	3	2.1	0	0.0	**5**	**0.8**	
Don't know	98	65.3	73	49.7	78	53.8	61	40.7	**310**	**52.4**	
Availability of health services in their camps (n=589)											
Yes	28	18.7	26	18.1	120	81.6	58	39.2	**232**	**39.4**	<0.001
No	93	62.0	45	31.3	23	15.6	50	33.8	**211**	**35.8**	
Don't kow	29	19.3	73	50.7	4	2.7	40	27.0	**146**	**24.8**	
History of illness this Hajj (n=596)											
Yes	56	37.3	38	25.9	64	43.0	24	16.0	**182**	**30.5**	<0.001
No	94	62.7	109	74.1	85	57.0	126	84.0	**414**	**69.5**	
Visiting PHCC this Hajj (n=597)											
Yes	24	16.0	31	21.1	5	3.3	5	3.3	**65**	**10.9**	<0.001
No	126	84.0	116	78.9	145	96.7	145	96.7	**532**	**89.1**	

Factors affecting primary health care services utilization by Hajjis, 1430 H.

(Continued from page 1)

lack of physical accessibility, language barrier, lack of required medicines, or dissatisfaction with the health services.[2]

A large percentage of hajjis were not aware of the location of the PHCCs and their exact opening hours, indicating that they had not been oriented about the available health services. A previous hajj study showed that 72.4% of Arab Hajjis (domestic and international) knew of the availability of a number of PHCCs and hospitals, run by the Saudi Ministry of Health, which provided free medical services for all Hajjis in Makkah, Mina, Arafat and Madinah.[3] It remains to be stated, however, that the vast majority of pilgrims in this study had been performing Hajj for the first time, which may partially explain their unawareness of the health services provided and its location and working hours.

The distance to the nearest PHCC for majority of Pakistani hajjis was <10 minutes, which might have enhanced their utilization of these centers. Based on available maps, the residence of Indonesians and Turkish were 10-30 minutes far from the nearest PHCC which, in turn, may lower their utilization. Many studies reveal the unsurprising fact that use of health services tends to decline with long distances. In Britain, a study done among sigmoidoscopy clinic visitors reported that the time and travel cost may deter visitors from attending the clinics.[4]

Some hajj missions, especially South East and Turkish, offer health service for their Hajj citizens to compensate for the language barrier.1 The availability of health service in hajji's camp may be one of the factors affecting their utilization of Saudi PHCC.

Visiting PHCC was higher among Pakistanis followed by Egyptians as compared to Turkish and Indonesians. This difference may be attributed to their knowledge of the location and opening hours of PHCC and the shorter distance from their camps to the nearest center, in addition to the availability of health service in the camps of Indonesian and Turkish hajjis. Again, most of the health workers in Saudi PHCC are Arabs or Pakistanis, which facilitate communication with their Egyptian and Pakistani patients. It was also noted that the severity of the disease, gender, and presence of chronic diseases can affect PHCC services utilization by hajjis.

It was recommended to attempt to organize health education campaigns for hajjis in their countries on how they can utilize health services in Makkah and the holy places. Communication between Ministry of Health and health Services within hajjis camps should be improved, with an effective referral system of cases who require services not available in the camps. Optimal distribution of health centers should be ensured, and overcoming the language barrier is required by providing medical staff speaking the same languages of Hajjis in coordination with related embassies of their countries.

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Risk factors for relapses, cont. ...

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into hospital, which is in concordance with findings of other studies.[4,5]

The study also demonstrated that patients who were on the new generation of antipsychotics (atypical antipsychotics) had less number of admissions compared to those who were still on old generation antipsychotics, which is also similar to findings of previous studies.[6]

It was recommended to increase the bed-capacity of the hospital, and provide it with an equipped addiction department in order to prevent relapses and readmissions as a result of substance abuse. The duration of hospitalization of schizophrenic patients should be revised by the treating psychiatrists to control for premature discharge and future relapses. New generation antipsychotics should be considered to prevent relapses as a result of poor compliance to treatment due to the unpleasant side effects of the old generation of antipsychotics. Patients should be encouraged towards adherence to antipsychotic treatment.

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ملخص باللغة العربية

تقرير أولي حول فاشية مرض النكاف في المنطقة الشرقية ١٤٣٠هـ (٢٠٠٩ م)

النكاف مرض معد يصيب الإنسان و يسبب إلتهاب حاد في الغدد اللعابية و الجهاز العصبي و أجزاء أخرى من الجسم. مدة الحضانة تتراوح مابين ١٦ إلى ١٩ يوماً. يبدأ المرض بارتفاع في درجة الحرارة و صداع ثم يظهر ورم في إحدى الغدتين اللعابيتين ثم تهبط درجة الحرارة و تعود الغدد لحالتها الطبيعية بعد حوالي ٧ أيام .

في يوم الأحد ٥/٤/٢٠٠٩م أبلغت إدارة الطب الوقائي في المنطقة الشرقية برنامج الوبائيات الحقلي عن ٥٩ حالة نكاف خلال هذا العام ٢٠٠٩م في ٣ مدارس عالمية في المنطقة. وعلى الرغم من الإجراءات المتخذة من الطب الوقائي إلا أن الحالات استمرت في الظهور. بناءًا على هذا فقد قرر برنامج الوبائيات الحقلي القيام بدراسة حول فاشية النكاف في الجبيل والخبر لمعرفة مصدر العدوى والتوصل إلى توصيات من شأنها السيطره على هذه الحالة ومنع حدوثها في المستقبل. قرر فريق العمل اجراء دراسة ضابطة لإنجاز أهداف هذه الدراسة.

عدد الحالات المصابة في الثلاث مدارس كانت ٥٩ حالة، معظمها (٨٩,٨٪) في المدرسة الهندية العالمية في الخبر، و كانت ٥٢ حالة (٨٨,١٪) من الجنسية الهندية. بلغ عدد الذكور ٥٣ (٨٩,٨٪) وعدد الإناث ٦ (١٠,٢٪). تراوحت أعمار المصابين بين ١٥ إلى ٤٣ سنة (متوسط ١٣,٨ و إنحراف معياري ± ٥,٣). كانت أكثرالحالات في الفئة العمرية من ١٣ - ١٦ سنة (٦٤,٤٪).

بدأت الفاشية في الجبيل وبالتحديد في مدرسة المعتصم العالمية، حيث ظهرت أولى الحالات، و التي كانت مدرّسة من الجنسية السرلانكية تبلغ من العمر ٣٧ سنة كانت قد وصلت خلال أسبوعين من بلدها، ومن المحتمل أن تكون مصدر العدوى، حيث بدأت الحالات بالظهور بعد وصولها و خلال فترة حضانة المرض. وقد أدى إتخاذ مكتب الطب الوقائي في الجبيل الإجراءات الوقائية اللازمة وتطعيم كل طلاب ومنسوبي المدرسة إلى توقف تفشي المرض في المدرسة. لكن وفي نفس الفترة بدأت حالات نكاف جديدة تظهر في المدرسة الهندية العالمية في الخبر. وكان تأخر إدارة هذه المدرسة في التبليغ عن الحالات المصابة سبباً في تفشي المرض بصورة كبيرة بين طلاب المدرسة وبعض منسوبيها، كما تسبب ذلك في إنتقال المرض الى طلاب مدرسة عالمية أخرى في الخبر، حيث اجتمع طلاب من المدرستين في دورة مسائيه في نفس الفترة.

كانت التطعيمات عند غالبية الحالات غير واضحه وغير مسجله في ملفات الطلاب في المدارس الثلاث، كما أن نظام التسجيل في المدارس لا يشترط إرفاق بطاقة التطعيمات الخاصة بالطالب مما قد يوحي إلى أن من أسباب ظهور الفاشية هو عدم تطعيم الطلاب.

قد يكون سبب زيادة الإنتشار هو تلاشي مفعول أي جرعة MMR سابقه أما في الفئة الثانية فذلك غالباً بسبب عدم أخذ تطعيمة MMR قبل دخول المدرسة. بدأ عدد الحالات في المدرستين بالإنحسار بعد إتخاذ مكتب الطب الوقائي في الخبر الإجراءات الوقائية اللازمة و تطعيم الطلاب.

تمت التوصية على التقيد بجدول التطعيمات الأساسية المقرر من وزارة الصحة السعودية والتأكيد على جميع المدارس سواء الحكومية أو الخاصة بإتباع الشروط والقوانين في قبول وتسجيل الطلاب ومنها الإلـزام بإرفاق بطاقة التطعيمات كاملة مع أوراق التسجيل، إضافة إلى الإهتمام بنظام المراقبة الوبائية وتوعية العاملين في القطاعات الصحية الحكومية والخاصة وكذلك المدارس العالمية بأهمية التبليغ عن الحالات بصورة صحيحة وسريعة.

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العوامل المؤثرة على استخدام الحجاج لخدمات الرعاية الصحية الأولية عام ١٤٣٠ هـ.

يصل إلى مكة المكرمة كل عام أكثر من ٢ مليون حاج لأداء مناسك الحج من مختلف الجنسيات والثقافات واللغات والأعمار ومستويات التعليم والحالة الصحية. ويمارس الحجاج الشعائر نفسها في ذات الوقت وفي نفس المكان، مما يخلق بيئة مناسبة لانتقال الأمراض المعدية، مثل التي تنتقل عن طريق الجهاز التنفسي أو الأغذية أو الدم. بالإضافة، فإن المعتقدات والعادات الشخصية و التعليمية للحجاج قد تـؤدي إلـى سلوكيات قد تجعلهم أكثر عرضة لاكتساب ونقل الأمراض.

تقدم السلطات السعودية للحجاج خدمات صحية مجانية على مدار الأربع وعشرون ساعة من خلال خدمات الرعاية الصحية الأولية والمستشفيات لضمان وجـود بيئة آمنة وصحية خـلال فترة الحج. وهناك عدة عوامل قد تسبب عدم استخدام الحجاج للخدمات الصحية المقدمة مثل سوء الوضع الاجتماعي والاقتصادي، إنخفاض مستوى التعليم، إضافة إلى معتقداتهم وممارساتهم الثقافية. كما ان هناك عوامل أخرى ترتبط بنظام الرعاية الصحية نفسه مثل صعوبة التعامل مع العاملين الصحيين بسبب اختلاف اللغة، عدم توفر الأدوية، عدم رضا الحـجـاج عـن الخـدمـات الصحية، أو عـدم معرفة الحـجـاج بأماكن تـواجـدهـا. هدفت هـذه الـدراسـة إلى تحديد العوامل المؤثرة على استخدام خدمات الرعاية الصحية الاولية من قبل حجاج الخارج، من أجل وضع التوصيات لتحسين استخدام الخدمات الصحية من قبل الحجاج.

أجريت دراسة وصفية مقطعية باستخدام استبيانات تعبأ ذاتياً من قبل الحجاج في منى. شملت فئة الدراسة أربـع جنسيات: الجنسية المصرية، الباكستانية، التركية والأندونيسية. كان حجم العينة ١٥٠ حاج من كل جنسية من الجنسيات المذكورة، وبلغ اجمالي عينة الدراسة ٦٠٠ حاج. و كانت العينات عشوائية طبقية عنقودية. شملت الدراسة ٢٤ مخيما في منى، بواقع ٦ مخيمات من كل جنسية من الجنسيات التي شملتها الدراسة.

كان ٥٥,٣٪ من العينة المدروسة من الذكور و٤٤,٧٪ من الإناث، و كانت الغالبية (٦٠,٧٪) في الفئة العمرية ٤١-٦٠ سنة. بالنسبة للمستوى التعليمي، كان أكثر من النصف (٥٦,٨٪) دون المستوى الجامعي، و كان ٣٥,١٪ من إجمالي عدد الحجاج يعملون في وظائف حكومية. و قد لوحظ أن غالبية الحجاج يـؤدون فريضة الحج للمرة الاولى (٨٤,٦٪).

بينت الدراسة أن ٣٠,٨٪ كانوا يعانون من أمراض مزمنة، منهم ٣٤٪ كانوا يعانون من مرض السكري، و٣٠,٨٪ من إرتفاع ضغط الدم. و قد أفاد ٥٤,٩٪ أنهم يعرفون مكان أقرب مركز صحي و ٣٥,٩٪ يعرفون ساعات الدوام الصحيحة، و قد تبين أن ٣٩,٤٪ لديهم خدمات صحية في مخيماتهم، نحو ٣٠٪ قد عانوا من أعراض مرضية أثناء الحج، وكانت الاختلافات بين الجنسيات التي تمت دراستها جميعها ذات دلالة إحصائية ($p < 0.001$).

كما بينت الدراسة أن ١٠,٩٪ من الحجاج قد زاروا مراكز الرعاية الصحية الأولية خلال موسم الحج لعام ١٤٣٠هـ. و كانت أعلى نسبة بين الباكستانيين (٢١,١٪) يليهم المصريين (١٦٪) مقارنة بالاتراك والأندونيسيين (٣,٣٪ كل منهم)، و كانت لهذه الفروق دلالة إحصائية ($p = 0.001$).

أما عن أسباب عدم استخدام خدمات مراكز الرعاية الصحية الأولية بين الحجاج فكانت إما بسبب أنهم لم يمرضوا (٦٠,٣٪)، أو كان لديهم خدمات طبية في مخيماتهم (١٦,٧٪)، أو انهم لا يعرفون أماكنها (١٦,٧٪)، أو الخوف من حاجز اللغة (١٤,٠٪).

أظهـرت الـدراسـة ان استخدام الحـجـاج الاتـراك والاندونيسيين لخدمات الرعاية الصحية الاولية أقل بصورة من المصريين والباكستانيين وذلك لاختلاف معلومات كل جنسية حول أماكن هذه المراكز وفترة الـدوام بها ومـدى قربها من أماكن أقامة الحجاج اضافة الى وجود خدمات طبية ببعض البعثات. أما العوامل التي أثرت على استخدامها فكانت الجنس حيث زارت الإناث المراكز أكثر من الذكور ($p=0.004$)، المعاناة من الأمراض المزمنة ($p=0.01$) ، معرفة أماكن المراكز الصحية ($p=0.001$)، و درجة شدة المرض من متوسط الى شديد ($p=0.016$) .

تمت التوصية على تنظيم حملات توعية لحجاج الخارج في بلدانهم عن كيفية استفادتهم من الخدمات الصحية المقدمة بالمشاعر، و العمل على توزيع المراكز الصحية بطريقة تضمن سهولة الوصول إليها وقربها من الحجاج، مع ضرورة وجـود تعاون بين وزارة الصحة والخدمات الموجودة داخل مخيمات الحجاج في مختلف الجوانب مع وجود نظام فعال للإحالة للحالات التي تحتاج الى خدمات غير متاحة بالمخيم .

إعداد: د. حسن مطر العتيبي، أ.د. إبراهيم علي كباش (برنامج الوبائيات الحقلي).

Mumps outbreak, cont....

(Continued from page 2)

a substantial decrease in mumps cases has been reported. From 1991 to 1997, national coverage of MMR vaccination has ranged between 76% and 91%. In 1998 an outbreak of mumps occurred in a highly vaccinated population among primary and intermediate school students in Riyadh city, when 64 confirmed mumps cases were reported, the first case in a 12-year-old child. The median age of mumps cases was 12 years (range: 9 months to 33 years) and 91% of them had been vaccinated. Of the 64 cases, children 10-14 years of age had the highest incidence rate of mumps with an attack rate of 31/1000 population. In the last few years, coverage of MMR vaccination has further improved, reaching up to 98%. Since 2002, the EPI vaccination schedule has included a first dose of MMR vaccine to be given at age one, followed by a second dose at school entry.

In this study, up to April 9, 2009, a total of 59 confirmed cases of Mumps had been reported. Based on review of the data since 1993, this number clearly exceeds the normal occurrence of Mumps in the region and should be considered of epidemic nature.[5]

The first case in this outbreak (index case) appeared on 26/12/2008. However, delayed notification by the schools led to an increase in the number of cases. This also led to delay in implementation of preventive measures by the preventive department in the region.

The role of vaccination failure is often difficult to assess. However, the accepted failure rate (derived from serological result) is in the range of 2% to 10%. A study reported that the finding of IgG seronegativity of randomized vaccinated population under 10 years of age was 10.5%, which warns of future outbreaks.[6]

The only variable significantly associated with infection in this study was vaccination status. However, it should be mentioned that the vast majority of cases occurred among a population that is not covered by the current vaccination strategy in the Kingdom. Other factors that may have played a role may have been primary vaccine failure and/or waning immunity.

Although the local health authorities have taken a number of appropriate measures to control the outbreak, it was recommended to isolate Mumps cases, where feasible, for its period of communicability. It was also recommended to vaccinate contacts of cases of all ages, whether at the three international schools or living in the same household, with the MMR vaccine, preferably within 72 hours of occurrence of the case. Routine MMR vaccination at school entry should be strengthened. Vaccination status of non-Saudi residents should be checked, and their vaccination records maintained.

Mark your calendar . . .

Inside the Kingdom

March 16 -17, 2010: 4th International Symposium on Infection Prevention and Control
Venue: Carlton al Moaibed Hotel
Contact: King Fahad Specialist Hospital, Dammam, Tel No 966 3 8431111 Ext 7010-6825, Fax 038429359

April 17-21, 2010: 3rd Course on Basic Biostatistics.
Venue: Riyadh Military Hospital
Contact: Department of Medical Studies, Riyadh Military Hospital
P.O.Box 7897 Riyadh 11159, Tel: 4777714 Ext: 25704 / 28677 Fax: 4760853

Outside the Kingdom

May 3-7, 2010: The 3rd Congress of the Jordanian Society of Endocrinology, Diabetes and Metabolism (JESD) / the Second Joint JESD-AACE Congress / The 9th Pan Arab Congress of Endocrinology & Metabolism / ISPAD PostGraduate Seminar
Venue: Hotel Le Meridien, Amman, Jordan.
Contact: Rasha Jabri: Samia Musleh
Tel: +962-6-4642501/2/3, Fax: +962-6-4642506
E-mail: admin 1@lawrenceconferences.com

July 18 - 23, 2010: XVIII International AIDS Conference (AIDS 2010).
Location: Vienna, Austria.
Contact: International AIDS Society HQ, PO Box 20, CH - 1216 Cointrin, GENEVA, Switzerland
Phone: 41-0-22-7-100-800, Fax: 41-0-22-7-100-899
E-Mail: info@iasociety.org

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call or fax the FETP at
01-496-0163
Website: www.fetp.edu.sa

Selected notifiable diseases by region, Jan — Mar 2010

	Riyadh	Makkah	Jeddah	Madinah	Taif	Qassim	Eastern	Hasa	Hafr Al-batin	Asir	Bisha	Tabuk	Hail	Al-Shamal	Jizan	Najran	Baha	Al-Jouf	Goriat	Gonfuda	TOTAL
Measles	0	0	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0	0	0	6
Mumps	0	0	2	0	0	21	0	0	0	0	0	0	0	0	5	0	0	0	0	0	28
Rubella	0	0	0	0	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Varicella	648	46	171	109	172	596	466	467	120	732	214	64	30	72	68	294	2	103	36	28	4438
Meningitis mening.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Meningitis other	36	0	1	1	4	9	0	2	1	2	2	1	0	1	0	1	0	0	0	0	61
Hepatitis B	173	0	75	126	39	65	149	4	1	74	3	74	1	12	0	46	1	6	3	0	852
Hepatitis C	63	0	82	25	12	23	92	4	0	34	8	17	0	2	7	6	0	13	3	0	391
Hepatitis unspecified	1	0	0	0	0	0	3	2	0	7	0	3	0	0	3	0	0	0	0	0	19
Hepatitis A	16	3	10	10	0	7	7	6	2	29	11	20	0	5	10	29	4	2	0	0	171
Typhoid & paratyphoid	2	0	4	5	0	1	6	5	2	14	23	0	3	1	0	0	0	0	0	1	67
Amoebic dysentery	5	2	161	6	14	0	131	30	0	54	17	0	0	0	2	3	0	0	0	0	425
Shigellosis	4	0	0	0	0	1	5	5	0	0	0	4	0	0	0	0	0	0	0	0	19
Salmonelosis	137	0	2	2	0	5	120	31	4	4	7	6	0	3	2	42	0	5	0	2	372
Brucellosis	130	6	16	26	80	251	81	8	75	177	111	7	27	40	25	65	0	4	4	2	1135

Comparisons of selected notifiable diseases, Jan - Mar 2009 - 2010

DISEASE	Jan-Mar 2010	Jan-Mar 2009	Change %	Jan-Mar 2010	Jan-Dec 2009	DISEASE	Jan-Mar 2008	Jan-Mar 2007	Change %	Jan-Mar 2009	Jan-Dec 2008
Cholera	0	0	0	0	4	Meningitis other	70	82	-15	70	334
Diphtheria	0	0	0	0	1	Hepatitis B	70	1459	-95	70	5020
Pertussis	0	10	-100	0	26	Hepatitis C	1204	775	55	1204	2487
Tetanus,neonat	1	7	-86	1	10	Hepatitis unspecified	578	96	502	578	220
Tetanus,other	2	3	-33	2	5	Hepatitis A	20	484	-96	20	1258
Poliomyelitis	0	0	0	0	0	Typhoid & paratyphoid	192	56	243	192	316
Guilain Barre Syndrome	9	23	-61	9	36	Amoebic dysentery	60	753	-92	60	3064
Measles	22	43	-49	22	81	Shigellosis	720	42	1614	720	121
Mumps	5	85	-94	5	138	Salmonelosis	28	250	-89	28	1372
Rubella	6	3	100	6	13	Brucellosis	276	1093	-75	276	4803
Varicella	4193	10724	-61	4193	31402	Dengue Fever	641	514	25	641	3350
Meningitis	3	2	50	3	6	Khurma	16	3	433	16	59

Diseases of low frequency, Jan – March 2010

Yellow fever, Plaque, Poliomyelitis, Rabies, Cholera, Pertussis: No Cases
Neonatal Tetanus: 1 Case (Makkah)
Ecchinoccocosis: 1 Cases (Baha)