

FIELD MEDICINE

A STUDY OF PAKISTAN HAJJ MEDICAL MISSION IN COMPARISON WITH SIX OTHER MEDICAL MISSIONS DURING 2008

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ABSTRACT

Objective: To describe constitution, capabilities and functioning of Pakistan Hajj Medical Mission (Pak HMM) in comparison with six other medical missions during Hajj-2008.

Study Design: A comparative cross-sectional study.

Place and Duration of Study: Pak HMM Hospital, Makkah Mukarramah over a period of 06 weeks during Hajj season-2008.

Material and Methods: Besides Pakistan, six other medical missions were visited and their heads requested to answer a specially designed questionnaire prepared in English. Constitution, capabilities and functioning of Pak HMM was compared with other missions. Data was managed and analyzed using computer programme SPSS-10.

Results: Pak HMM was selected 12 weeks, whereas other missions were selected 06-24 weeks (mean=16.33+8.62) prior to Hajj season ($p=0.66$). The doctor: haji ratio at Pak HMM was 1: 1650, whereas it was 1:180-1: 2188 (mean=1:807.16 + 708.56) at other missions ($p=0.32$). During peak days, average daily out-patient attendance of Pak HMM was 6000, whereas it was 2000-4000 (mean=2833.33 + 816.49) at other missions ($p=0.016$). Six (85.71%) medical missions including Pak HMM had indoor facilities, routine diagnostic facilities and were able to perform minor surgical procedures under local anaesthesia. Number of fully equipped ambulances for critical evacuation of patients in Pak HMM was none whereas in other missions, it ranged from 0 to 16 (mean=6.33+7.45).

Conclusion: Pak HMM is neither selected well in time nor involved in pre-Hajj medical assessment of the intending hujjaj. Although Pak HMM provides health care facilities to Pakistani hujjaj to the best of its capabilities, its indoor facilities, selection and utilization of specialist doctors as well as trained staff and ambulance evacuation of critically sick patients are not adequate.

Keywords: Medical Mission, Hajj Medical Mission, Hajj, Health care.

INTRODUCTION

Every year millions of Muslims from round the globe gather at the Holy Cities of Makkah Mukarramah and Madina Munawwarrah to perform Hajj (pilgrimage) and other religious rituals. Although excellent arrangements are made by Saudi Government to accommodate and facilitate hujjaj (pilgrims) during their stay at the Holy Cities, majority of the people come across a variety of illnesses mainly because of over-crowding [1], old age [2], previous illnesses [3] and trauma [4]. Saudi hospitals work day and night to take care of ailing hujjaj; however, most of the countries establish their own

medical missions at the cities of Makkah Mukarramah and Madina Munawwarrah to provide health care facilities to their respective hujjaj. These medical missions generally, have one or two hospitals with indoor and diagnostic facilities and a few peripheral out-door clinics to provide primary and sometimes secondary health care facilities to their hujjaj. Patients requiring tertiary care or surgical operations under general anaesthesia are referred to Saudi hospitals.

Such medical missions are beneficial in that it is convenient for both the hujjaj as well as physicians to communicate with each other in the familiar socio-cultural set up [5] as it has been reported that a better health care outcome can be obtained with reciprocity and mutual influence [6]. Pak HMM hospitals are

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established every year at both Makkah Mukarramah as well as Madina Munawarrah. However, functioning of Pak HMM needs to be studied in comparison with medical missions of other countries so that services of the medical mission can be modified and utilized to an optimum level for better health care delivery.

The objective of this study was to describe constitution, capabilities and functioning of Pak HMM in comparison with medical missions of six other Islamic countries during Hajj-2008.

MATERIAL AND METHODS

The study was conducted at Pak HMM Hospital, Makkah Mukarramah over a period of 06 weeks during Hajj season-2008. A self explanatory questionnaire was prepared which included questions relevant to constitution, capabilities and functioning of Hajj medical missions. It was not pre-tested. Although questionnaire was prepared in English and the same language was used as the medium of communication, services of interpreters were utilized where required. Besides Pakistan, six Islamic countries from different regions of the world including Bangladesh, Egypt, Indonesia, Iran, Malaysia and Turkey were selected, their medical missions visited and heads of the missions were requested to answer the questionnaire. The questionnaires were not deposited to the medical missions at any time to avoid difficulties in interpretation of the questions. Authors and interpreters where required, remained present throughout the interview to clarify points in questionnaire raised by the respondents.

As heads of two medical missions were cautious in giving consent for discussing details of their mission with name, Pak HMM has been named as such, whereas numbers 1-6 and alphabets A-F have been used to denote the medical missions of other six countries in Tables 1 and 2. However, to maintain anonymity further, labeling of the medical missions in Tables 1 and Table 2 as numbers 1-6 and alphabets A-F respectively, do not correspond to each others.

Data was collected, managed and analyzed using computer programme SPSS-10. Frequencies and percentages were obtained for the variables where applicable. Mean and standard deviation were calculated for continuous variables. Means of variables were compared for significance using Independent-Samples T Test where required.

RESULTS

Medical missions of 03 (42.85%) countries were selected and controlled by Ministry of Health, 02 (28.57%) including Pak HMM by Ministry of Religious Affairs, 01 (14.28%) by Red Crescent Society of the country and 01 (14.28%) jointly selected and controlled by Ministry of Health and a semi-government Islamic body. None of the medical missions had a permanent office/secretariat in their countries. Pak HMM was selected 12 weeks prior to the departure of first group of hujjaj to Kingdom of Saudi Arabia, whereas members of other 06 medical missions were selected 06-24 weeks (mean=16.33+8.62) prior to Hajj season (p=0.66).

Number of Pakistani hujjaj was 165, 000, whereas that of hujjaj from other 06 countries ranged from 36,000 to 210,000. Number of doctors included in Pak HMM was 100, whereas that in other 06 medical missions ranged from 60-580 with a mean of 202.66 + 205.31. Pak HMM had 160 paramedics, whereas the number of paramedics in other medical missions under study ranged from 20-300 with a mean of 181.16 + 96.29. The doctor: haji (pilgrim) ratio at Pak HMM was 1:1650, whereas at other 06 missions, it ranged from 1:180 to 1: 2188 with a mean of 1:807.16 + 708.56 (p=0.32) During peak days average daily out-patient attendance at Pak HMM was 6,000, whereas it ranged from 2000 to 4,000 with a mean of 2833.33 + 816.49 at other missions (p=0.016) (Table 1).

Six (85.71%) of the 07 medical missions including Pak HMM had indoor facilities, routine diagnostic facilities and were able to perform minor surgical procedures under local anaesthesia. Pak HMM had 11 out-door clinics in addition to main hospitals, whereas the number of out-door clinics ranged from none to 20 in case of other medical missions.

Table 1: Strength and workload of Hajj Medical Missions

Hajj Medical Mission	Number of Doctors	Number of Patients	Number of Hujjaj	Dotor : Haji Ratio	Out-Patient Attendance (daily average)
Pak HMM	100	160	165,000	1:1650*	6,000
1	120	120	77,000	1:642	2,000
2	300	300	130,000	1: 433	4,000
3	580	250	104,000	1:179	3,500
4	60	20	48,000	1:800	2,000
5	60	150	36,000	1:600	3,000
6	96	200	210,000	1:2187	2,500

* p value=0.32

** p value=0.016

Table 2: Capabilities of Hajj Medical Missions

Hajj Medical Mission	Indoor Facility	Diagnostic Facilities	Performance of minor surgical procedures	Number of fully Equipped ambulances
Pak HMM	Yes	Yes	Yes	Nil*
A	No	No	No	16
B	Yes	Yes	Yes	15
C	Yes	Yes	Yes	Nil
D	Yes	Yes	Yes	01
E	Yes	Yes	Yes	06

* p value=<0.001

Pak HMM had no fully equipped ambulance for critical evacuation of patients whereas this number ranged from 0 to 16 (mean=6.33+7.45) in other medical missions (p=<0.001) (Table-2).

DISCUSSION

To provide better health care facilities to the respective hujjaj, most of the countries establish their own Hajj Medical Missions at Makkah Mukarramah and Madina Munawarrah during Hajj season every year. Members of Hajj Medical Mission are selected every year by the concerned Ministry or other organizations, a few weeks to a few months prior to the departure of first group of hujjaj to Kingdom of Saudi Arabia for Hajj. Out of the medical missions under study, only one medical mission was selected well in time and remained involved in selection and pre-Hajj medical assessment of the intending hujjaj. The other missions including Pak HMM were either not selected by the time intending hujjaj were being medically examined or they were not involved in the process medical assessment of the hujjaj. Probably that was the reason that daily outdoor attendance at main hospital of the mission that was involved in

pre-Hajj medical assessment was just 250-300 in comparison with all other medical missions whose daily hospital out-door attendance was in thousands. Although the number of patients at main hospital of this mission was comparatively very less, the hujjaj of this country were being attended routinely by the respective physicians who were involved in their pre-Hajj medical assessment and were living with them at respective residential buildings. Only cases requiring specialist opinion or indoor treatment were referred to the main hospital. We suggest that medical missions should not only be selected at least 03-04 months prior to the beginning of departure of hujjaj to Kingdom of Saudi Arabia, they must also be involved in their pre-departure medical assessment. Involvement of medical missions in pre-Hajj medical assessment of the intending hujjaj will not only facilitate elderly hujjaj, having multitude of chronic illnesses, it will also decrease workload of the medical missions.

The patients per doctor ratio ranges from 170 to over 50,000 [7], throughout the world. Although this ratio at the medical missions under study was much better than that in the

respective countries, the services of specialist doctors were not being utilized to an optimum level except in 02 missions. This lapse in utilization of the specialist expertise was probably because of problems in selection, planning and organization of the missions in addition to lack of specialized equipment. There is growing international recognition that adequate health workforce is one of the key ingredients in achieving improved health outcomes, though human resources for health have been a neglected component of health systems development in low-income and middle-income countries [8]. With proper planning to utilize the services of specialist physicians and procurement of specialized equipment, not only the hujjaj can be served in more efficient manner [9], the dependence on Saudi hospitals, which are already working to their limits, can also be minimized. The doctor: haji ratio at Pak HMM was better than one medical mission only; improvement in this ratio would reduce the workload of the physicians who can give adequate consultation time to the patient that may help improve patient's satisfaction and confidence resulting in a better health care outcome.

Although 06 medical missions were having facilities for hospitalization of the patients, only 02 were equipped for providing advanced medical support. All 04 other missions including Pak HMM had just basic medical support for their indoor patients and would refer their patients to Saudi hospitals for advanced medical support. Maintaining indoor facilities without properly equipped staff can not only become a source of mistrust among the dependent hujjaj, it can also be frustrating for the trained professionals. However, if the indoor facility has to be maintained with just basic medical support, it needs to be widely communicated to avoid false hopes of the dependent hujjaj and any embarrassment for the medical mission. On the other hand, it would be worthwhile to establish permanent Pak HMM at Makkah Mukarramah which could function round the year with maximum number of staff including specialist physicians and trained

paramedics during Hajj season and a limited staff during rest of the year to provide health care to those visiting for Umrah. One of the missions was actually maintaining a well established hospital functional for 10 months a year, unlike other missions whose hospitals stop functioning after Hajj season. Keeping hospital functional round the year would not only be helpful in maintenance of the equipment, it would also help in constantly improving the quality care.

Only 03 medical missions were maintaining fully equipped ambulances for critical evacuation of the hujjaj [10]. Three missions including Pak HMM had none of such ambulances; these missions had ambulances for just transportation of the hujjaj to and from their health care facilities. Although majority of the patients transported by ambulances do not require pre-hospital intervention at the scene or during transportation to the hospital [11, 12], fully equipped ambulances are critical for evacuation of seriously ill patients. The need for fully equipped ambulances becomes even more critical during peak Hajj days when most of the streets in Makkah Mukarramah near the Holy Mosque are almost choked around prayers timings and evacuation of the patients becomes very slow.

Hajj Medical Missions of different countries operate mainly at Makkah Mukarramah as hujjaj stay at this Holy City for maximum days of their tenure. As they also visit Madina Munawwarah for religious obligations for a period of 08-10 days, some elements of these missions also operate there to a limited capacity. Six of the medical missions including Pak HMM were operating at Madina Munawwarah on rotation of their staff, whereas 01 medical mission had independent set ups at both the Holy Cities. Having independent set ups at both places may be to the advantage of better functioning and efficient delivery by the medical missions, it may not be feasible when viewed from the standpoint of the members of the medical missions for obvious religious incentives.

There is an extraordinary en masse migration of around 03 million hujjaj to Mashaer (Mina, Arafat, Muzdalifa-places where hujjaj have to move and stay for prescribed timings to perform Hajj rituals during Hajj days) on Dhul Hijjah 8 to 12. During this period Saudi hospitals function round the clock to deal with any medical casualties [13] and medical missions of other countries are discouraged by Saudi Government to operate at these places. As the medical missions stop operating during Hajj days, they may possibly volunteer to work at Saudi hospitals at Mashaer. Working at these hospitals with physicians of different nationalities may become a great learning experience [14].

Although Pak HMM provides medical treatment to the ailing hujjaj to the best of its capability, the functioning can be further improved by timely selection of members of the medical mission and their involvement in pre-Hajj medical assessment of the intending hujjaj before departure. Selection of appropriate number of specialist physicians, their optimum utility, procurement of specialized equipment including fully equipped ambulances and their operation by trained staff would further enhance health care outcome.

CONCLUSION

Pak HMM is neither selected well in time nor is involved in pre-Hajj medical assessment of the intending hujjaj. Although Pak HMM provides health care facilities to Pakistani hujjaj to the best of its capabilities, its indoor facilities, selection and utilization of specialist doctors as well as trained staff and ambulance evacuation of critically sick patients are not adequate.

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