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THE FIRST EVER HAJJ HEMS OPERATIONS IN SAUDI ARABIA (KSA) 2006

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HADJ

Hajj is known to be the world's largest single gathering, whereby over 3 million pilgrims come together to perform an Islamic ritual. It is the largest event in the world, designated to one area with the gathering of so many nations with no comparison to the second. It is an obligatory ritual performed by all Muslims once in their lifetime. During this period all eligible Muslims travel to the Islamic holy city of Mecca in Saudi Arabia.

The Public Health Care in the KSA

The Kingdom of Saudi Arabia is well-known and respected for their excellent coverage on public health care, advanced medical centres and one of the largest well known fixed wing air rescue transfer system in the world. SRCS has an excellent ground ambulance services for the pre-hospital patient transfer. The only missing link to complete this chain is Helicopter Emergency Medical Services.

There are many temporary hospitals at the Hajj site that are functional only during this period. Once the hajj ritual is over these hospitals are closed down and the patients are all transferred to hospitals in different cities by ground ambulances.

While the Kingdom of Saudi Arabia admirably manages this event to the admiration of the world, HEMS inevitably will be ever more needed complementary issue for SRCS success.

Mass Gatherings and Mass Casualties during the Hadj Seasons

Considering the vast numbers of people involved, the Hajj today is probably much safer than it was in the past. Nevertheless, accidents do occur because of this paramount mass gathering. Mass gathering is defined as:

a gathering of a group of more than 1000 people.

Mass casualties may occur as a result of stampede. Diseases can spread easily,

even though that the authorities do their best to prevent all these from happening.

A further difficulty is that many of the pilgrims can be quite elderly and are possibly venturing for the first time outside the familiar surroundings of their birthplace. This is a vulnerable group and therefore most probably will be a need of a rapid and efficient pre-hospital medical attends, that can best delivered by HEMS

For many years stampede have occurred at the ritual sites causing many deaths and injuries.

Picture 1. A scene of crowds at Arafat plains Disaster Data during Hajj Seasons

Disaster Data during Hajj Seasons

- Jan. 5, 2006: At least 362 pilgrims died in a stampede during the „stoning of the devil“ ritual; a hostel collapsed in Mecca, killing at least 76 people.
- Febr. 2004: Some 251 pilgrims died in a stampede during the „stoning of the devil“ ritual.
- Febr. 2003 14 died
- March 2001: 35 pilgrims crushed to death at Arafat.
- April 1998: 180 pilgrims crushed to death. (118 devil stoning, 62 on the route to stoning)
- April 1997: 350 pilgrims killed when in a fire started by a gas cooker swept through the tents at Mina.
- May 1994: 270 pilgrims crushed to death at the stoning of the devil.
- July 1990: 1,426 pilgrims killed during a stampede in a pedestrian tunnel linking Mecca with Mount Arafat. The stampede is thought to have been caused by the great heat when a ventilation system in the tunnel broke down.
- July 1989 5 Pakistani die in a fire at a camp, and 1 when a bombe exploded near the Grand Mosque
- 1987: More than 400 pilgrims died as a result of crowd disorder.
- Nov. / Dec. 1979 127 troops and 26 civilian die in fighting with Saudi militants, of them 102 also died

A total of 3247 deaths occurred during the hajj period from 1987 to 2006.

Also during this period many other acci-

dents may occur and patients with chronic medical problems may have acute exacerbation, while other acute medical cases might as well occur. The weather conditions that reach up to 50° C (depending on the season) also contributes to the medical problems faced by the pilgrims. The biggest problem is when these patients are to be transferred during the hot season of Hajj. About 3 million people gather in a relatively small area at this time. The movements of people or vehicles are completely hindered because of the vast crowd. It takes about one or two hours to move a patient from one end of the field to the other by ground ambulance.

Picture 2. A scene of traffic and human mass gathering during Hajj.

EMS cooperating with HEMS is a necessity

- The right medical crew with right equipment at the right time reaching the patients
- The slow or hardly moving ground ambulance units as a result of the crowd would have been assisted with a much faster vehicle of rescue helicopters
- Overcrowded hospitals in Mecca and the temporary field hospitals would have been supported through the excellent medical centres in Jeddah which is only eighteen minutes flight time away.

The first SRCS & RSA HEMS Mission in Mecca

All these benefits can be facilitated with HEMS operation. This had been proven by SRCS&RSA HEMS operation at Hajj 2006.

This is one of the main reasons besides the heavy road traffic accidents why the SRCS decided to implement the HEMS (Helicopter Emergency Medical Service) operations. With the sponsorship of Abdul Latif Jam eel (ALJ) Co. Ltd. Social Community Programs the REDSTAR Aviation of Turkey was asked to operate the HEMS

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mission in Saudi Arabia. Under the ownership of SRCS, with the ALJ sponsorship the Redstar Aviation started the first ever HEMS mission in Saudi Arabia in 2006.

Two air ambulance configured helicopters type BO 105 LS A3 were purchased from the Euro copter Canada for the purpose of that mission.

The helicopters medical interior was designed to cater for intensive care patients too. Patients were transferred from field hospitals to other government hospitals by the helicopters. The dedicated staff consisted of well-trained Anesthesiologists, Emergency medical specialists and paramedics. The crew configuration was usually a doctor and a paramedic. The flights held by very experienced pilots with 5000-6000 flight hours.

The patients were transferred from the intensive care units at the field hospitals to hospitals in Mecca city. A total of 15 patients were transported in a 3-day period. All fifteen patients were taken from intensive care units and 10 of the patients were on ventilators. The rest were ICU patients but not intubated. The average flight time was 10 minutes and all patients were transferred without any complications.

Picture 3. The HEMS team delivering a patient to the hospital



The future plan of the mission was drawn to have the primary mission flights with HEMS in Saudi Arabia, however we had just secondary mission flights due to the lack of third party awareness trainings and landing zone preparations.

It is always proven that air patient transfer is a certain need for these massive crowded organizations. The crowd always slows the movement of Emergency System

vehicles. HEMS does not only transfer patient but also HEMS transfers immediately doctors and paramedics to the emergency on the scene, to fulfill the Law of the Golden Hour.



