Emergency Medical and Prehospital Care

Lt. Col. Gregory M. Wickern, MD
Chief, Professional Services, Pacific Air Forces, United States Air Force

Introduction: The United States Air Forces, Pacific Command (PACAF), has nine medical treatment facilities (MTF) located in two states in the United States (Alaska, Hawaii), one United States territory (Guam) and two additional countries (Korea and Japan). The area of responsibility for PACAF covers >100 million square miles and includes climates ranging from moderate tropical to bitter cold. Each PACAF MTF has an integral ambulance service and emergency medical system with varying degrees of capability and complexity. Recognizing that civilian ambulance service systems in the United States have developed business and performance standards to improve clinical outcomes, the staff of the PACAF Command Surgeon was charged to survey the need for and establish uniform standards within the command.

Methods: A survey of all nine MTFs was conducted in December 2000 inquiring about current ambulance service practices and policies. The survey addressed issues commonly covered in civilian ambulance service standards.

Results: The survey revealed many areas in which there was no uniformity among the MTFs. Some of this variability was a consequence of the varied geography, climate and host states or countries in which the MTFs worked. Some of the variability was a consequence of minimal Air Force written guidance relating to ambulance services. The Command Surgeon, after seeing the survey results, asked that more uniform standards be developed and implemented within the Pacific Air Forces. Using available tested standards from varied sources and taking into consideration the limitations and challenges that the MTFs face, standards were written addressing several areas: 1) ambulance service management personnel, policies and plans; 2) communications needs; 3) biomedical equipment and supplies; 4) personnel training and certification; 5) emergency response times; and 6) program and performance evaluation plans and metrics. These new standards were then presented to all MTF commanders attending a conference in Hawaii in late January 2001. Among the many standards presented, emphasis was placed on appropriate levels of emergency medical personnel training and certification. Each MTF commander was to train his personnel to meet or exceed local civilian ambulance service standards. At one MTF in Fairbanks, Alaska, this required an increase in the level of expertise by the Air Force emergency medical technicians (EMT). Not long after the upgrade training was completed, the newly acquired training of the EMTs resulted in the advanced cardiac life support resuscitation of a visitor to the base. Other MTF ambulance services throughout the command have begun reviewing their policies and practices using the new standards, and are updating the command surgeon staff with their progress quarterly. Emergency medical personnel have expressed appreciation for the more detailed direction the new standards have provided them. We await further evidence of the benefits that these standards are expected to produce.

Conclusion: In an effort to improve the quality of ambulance services within the United States Pacific Air Forces, uniform standards covering planning, policies, training, equipment, communications and response times were introduced in early 2001. The standards have been well received by the personnel charged with adopting them and, despite occasional challenges, benefits from the standards have already been witnessed. Our experience joins that of many United States and international civilian emergency medical services that demonstrates the value to establishing and implementing uniform standards.

Keywords: ambulance service; climates; emergency Midest systems; facilities; geography; management; plans; policies; quality; response; standards; supplies


HazMat Decontamination Facilities and Personal Protective Equipment in Emergency Department

Dr. Simon Tang, MB, BS(HK), FRCS(A&ES)
Emergency Department, Alice Ho Miu Ling Nethersole Hospital, Hong Kong Hospital Authority, Hong Kong

HAZMAT victims may bypass the prehospital decontamination procedures at the disaster incident site, and these victims will pose a threat to our staff and other patients in emergency department when they arrive at emergency department via their own transport. Therefore, the setting up of hospital-based decontamination facilities and the provision of personal protective equipment (PPE) for staff are essential in handling HAZMAT incidents. In our hospital, we have purchased a set of decontamination equipment to serve for this purpose. This equipment includes water supply, air shelter, decontamination stretchers, decontamination showers, water pump, and water tanks. There are 4 levels of PPE. In Hong Kong, our emergency departments use at least Level C PPE to protect our staff handling HAZMAT victims. All staff members working in PPE are required to attend training courses including setting up of decontamination showers, don and doff of PPE. The main focus is to train the staff to protect themselves from different routes of contamination, including skin, respiratory tract and eyes.

Keywords: decontamination; emergency department; equipment; hazardous materials; Hong Kong hospital; personal protective equipment; training


Emergency Department HazMat Decontamination Contingency Plan

Dr. Richard Yeung, MB, BCH(NUI), MRCPI(UK), MRCPI, FRCS(Ed), FHKCEM, FHKAM (Emergency Medicine)
Emergency Department, Alice Ho Miu Ling Nethersole Hospital, Hong Kong Hospital Authority

HazMat incidents can occur in a number of ways. It can range from simple contamination by chemicals in a laboratory to a...