

methods of organization and management, as well as ongoing evaluation of the results of the conducted activity.

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Medical Evacuation of Seriously Injured in Emergency Situations: Experience of EMERCOM of Russia and Directions of Development

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Introduction: The steady increase in the number of natural and man-made disasters causes the need for urgent ambulance aircraft evacuation of seriously injured to the specialized federal medical institutions with appropriate equipment, advanced technologies and highly qualified personnel to provide specialized high-tech assistance to victims. The medical institutions can be located at a considerable distance from the place of emergency.

Method: EMERCOM of Russia, staffed by highly qualified medical personnel, equipped with resuscitating medical modules in airplanes and helicopters (MMA and MMH), has been successfully carrying out medical evacuation of seriously injured in emergency situations to specialized medical institutions for many years (since 2008).

Results: Based on the results of the use of the medical modules, it was proved that their use in mass ambulance aircraft evacuation is fully justified. During the flights, sparing transportation of the injured is provided, complete monitoring and compliance with the continuity of the treatment process. With the use of MMA and MMH, the quality of mass ambulance aircraft evacuation of seriously injured has significantly improved and the delivery time from the lesion to specialized hospitals has been reduced, as well as the lethality of victims.

The analysis of the effectiveness of the use of medical modules showed that the use of modules during the ambulance aircraft evacuation of seriously injured reduces mortality at the pre-hospital stage by 3.3 times, at the hospital stage—by two times ($p < 0.05$).

Conclusion: EMERCOM of Russia introduced into the practice of aviation medical evacuation the medical technology using extracorporeal membrane oxygenation (ECMO) for the rescue of seriously injured.

On the basis of NRCERM, a simulation center has been founded and equipped for the training of aviation medical teams, a training program has been developed for the medical

personnel of EMERCOM of Russia participating in ambulance aircraft evacuation of victims in emergency situations.

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Tropical Cyclones and Burn Injuries—Hurricane Ida 2021

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Introduction: Tropical cyclones are common weather phenomena occurring during the summer and fall months, primarily impacting coastal areas of the eastern shore of North America and the eastern and southeastern coast of Asia. The injuries often reported in the aftermath of these storms include near drowning, orthopedic injuries, and stress-induced cardiovascular emergencies. However, in the aftermath of Hurricane Ida (August 2021), we saw (and will discuss) an unusual trend of burn injuries.

Method: Anonymized patient data from the regional burn center was reviewed for storm-related injuries in the 30 days post-Hurricane Ida landfall. This retrospective analysis included demographics of the patient population, size of injury (reported in total body surface area [TBSA]), mechanism of injury, and length of stay.

Results: Inclusion criteria (burn injury as a chief complaint during the 30 days following the hurricane) identified 41 patients. Of the 41 patients, (32/41 [78.0%]) were admitted for their injuries. The leading nature of the injuries included flame (25/41 [60.1%]) and scald (9/41 [22.0%]). The leading cause of burn injury included generator operations (refueling, gasoline, propane, contact with hot surfaces, etc., (14/41 [34.1%]), debris management (7/41 [17.1%]), and open flame for cooking or lighting (11/41 [26.8%]). Patient ages; median of 43.0 years [0.5 to 79]) with sexual (identity being recorded as) male (32/41 [78.0%]) and (9/41 [22.0%]) female.

Conclusion: Climate change is contributing to the increased frequency and intensity of tropical cyclones. Consequently, strategies such as generator use and reliance on alternative fuel sources for lighting, heating, and cooking, have become more widespread to cope with the temporary interruption of public utilities following a natural disaster. However, these temporary solutions have led to an increased frequency of burn and inhalation injuries. Solutions include campaigns to increase public awareness and an increased clinical readiness to receive and manage more patients with burn and inhalation injuries.

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