Study/Objective: To perform trial exercises, study, and technical evaluation of the Patient Isolation Units (PIU), for biosafety of the emergency medical care staff during transportation of a suspected patient with a high contagious disease and microclimate conditions in the PIUs' chambers.
Background: Deployment of a PIU for temporary isolation and transportation of an infected patient requires high-level biosafety measures, to avoid uncontrolled release of infectious material and protect medical care staff. Different design features and performance in a variety of biosafety ventilation systems of PIUs, initiated concerns regarding comfort, safety, and microclimate conditions for the patients during transportation operations, including uncontrolled ingress of the disinfection liquids into the PIU chamber during disinfection treatment.
Methods: Microclimate conditions and physiology status in the PIU's chambers were evaluated with the volunteers having purposely elevated core body temperature for +38, 5 °C and placed in a PIU. Volunteer´s rectal, skin temperature, and heart rate were recorded during negative/positive pressure ventilation regime of a PIU, including microclimate parameters such as external/internal temperature, humidity, airflow, air pressure, air exchange rate, and CO_2 concentration.
Results: It was concluded that desirable nominal AER inside of an isolation chamber should be in the range of 35-50 times/hour, compared to a majority of commercially available PIUs with the insufficient AERs of 10-15 time/hour.
Conclusion: Trial exercises with practical handling of the mock patients during their temporary isolation and transportation in the PIUs by the EMS Biohazard Teams demonstrated the need of cooperation between the first responders (EMS, fire service, police, and health care) to improve joint standard operational procedures. Potential heat stress risk of a patient isolated in a PIU is significantly influenced by the performance of biosafety ventilation systems. High air exchange rate in PIUs' chambers is essential to control a patient's comfort and cooling effect.
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Emergency Medical Team Working Group for Minimum Data Set

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Study/Objective: To enhance flow of standardized information between Emergency Medical Teams (EMTs), Emergency Medical Teams Coordination Cell (EMTCC), and the Ministry of Health (MOH).
Background: During a disaster, EMTs' assistance arrives with lots of goodwill, but may not be compatible with the needs or the situation. Every EMT has its own data collection and report system. The variety of each data gathering system creates difficulties in the process and analysis of information for by the EMTCC and MOH. There is a gap in the reporting due to lack of pre-existing standardized template. Lack of a standardized reporting system creates difficulties for EMTCC and MOH to collect data for future research to improve the disaster response. Japan International Cooperation Agency (JICA), Israel's Agency for International Development Cooperation (MASHAV), and the World Health Organization (WHO) set a Working Group (WG) to define the Minimum Data Set (MDS) for disaster report.
Methods: A preliminary meeting with JICA and MASHAV set the concept and introduced it to the WHO. With the WHO's approval, a secretariat of a MDS WG was established and made a literature review. Thirteen international organizations joined the MDS WG. Summary of the first WG and MDS internet survey was taken with the response of 29 countries' EMTs. The outcome was presented to the second WG in order to define the strategy and the items for the MDS, taking into consideration the patient's record and the EMTCC and MOH needs statistics.
Results: Based on the survey, MDS WG determined the items should be included in the reports and will be finalized by the WHO and the WHO's recommendation to use as MDS reporting by EMTs.
Conclusion: Using standardized MDS can help with data collection in disaster in order to provide better medical care and to develop research for future learning and better disaster response.
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The Robot Physician's (RP-7) Management and Care in Unstable ICU Oncology Patients

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Study/Objective: An assessment and treatment of Intensive Care Unit (ICU) Oncology patients is important for surgeons and intensivists. The use of Robot Physician's (RP - 7), ICU management, and care of ICU Oncology patients.
Background: The timely assessment and treatment of ICU Oncology patients is important. We hypothesized the use of Robot Physician's (RP-7) ICU to improve management and care in unstable ICU Oncology patients.
Methods: This is a study using the effectiveness of RP. RP is used to make multi-disciplinary ICU rounds in the ICU and for Emergency cases. Data from several aspects of the RP interaction, including the latency of the response, the problem being treated, the intervention that was ordered, and the type of information gathered using the RP, were documented. The effect of RP on ICU length of stay and cost was assessed.
Results: The use of RP was associated with a reduction in latency of the attending physician face-to-face response for routine and urgent pages compared to conventional care (RP: 10.2 [SD = 3.3] minutes vs conventional: 220 [SD = 80] minutes). The response latencies to Oncology Emergency (8.0 [SD = 2.8] vs 150 [SD = 55] minutes) and for Respiratory Failure (12 [SD = 04] vs 110 [SD = 45] minutes) were reduced ($P < .001$), as was the LOS for patients with AML (5 days) and ARDS (10 days). There was an increase in ICU occupancy by 20% compared with the pre-robot era, and there was an ICU cost savings of KD2.2 million attributable to the use of RP.