These interventions included additional eye decontamination; select patients had nebulized calcium for respiratory distress, topical calcium for skin exposure, and IV calcium, and magnesium for EKG abnormalities. All were discharged home the next day.
Conclusion: This event exemplified how strong communication and planning helps control the impact of a mass casualty event. Having a strong interplay between an integrated incident command, EMS, Toxicology, Pharmacy, and EM physicians should all be built in to disaster planning to facilitate all-hazard preparedness and resilience.
Prehosp Disaster Med 2017;32(Suppl. 1):s8-s9
doi:10.1017/S1049023X17000504

Necessity of Information Sharing System of Air Dose Levels to Secure enough Medical Teams within the Evacuation Zone in Nuclear Disasters

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Study/Objective: We investigate what becomes obstacles to ensure an adequate number of medical response teams, which are deployable to secure safe transport of patients to an alternative location in nuclear disaster.
Background: One hospital in Fukushima lost more than 10% of patients while transporting them in a traffic jam without medical attendance. Disaster Medical Assistance Teams (DMATs) don't have any duties in nuclear disaster.
Methods: A questionnaire survey was carried out to investigate awareness for a radiation emergency medicine among DMATs in Japan.
Results: DMAT members think that the special-educated DMATs for radiation will be a better relief team than REMATs (Radiation Emergency Medical Assistance Team) for hospital evacuation. REMATs are the only specialists of radiation dose evaluation; REMATs have a little knowledge of emergency medical care, and their human resource is poor. But DMATs also think that a majority of them do not want to be on-duty for nuclear power plant disasters. Their hesitation is made by the lack of dosage information at their working place. It affects their decision to dispatch adversely; if only a few data public monitoring posts are offered. But if the first comer DMAT measured the dose rate already, the next team will participate in medical activities. We also evaluated the usefulness of a new ultra-compact portable dosimeter. Once connected to a smartphone, the device works in conjunction with an application software and continues to take and store measured results automatically as digital data. It is also possible to visualize the measurements by automatically importing them to an enlargeable map for real-time information sharing. DMATs think this system will provide a sense of security to them.
Conclusion: Information dissemination on correct knowledge of radiation and timely sharing of data on radiation doses are required to ensure that enough medical response teams are deployable in the event of large-scale and complex disasters.
Prehosp Disaster Med 2017;32(Suppl. 1):s9
doi:10.1017/S1049023X17000516

Nuclear Disasters: Our Actual Medical Experience

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Study/Objective: We analyzed the medical team's roles, mainly based on actual experiences on site, against nuclear disasters.
Background: Repeated nuclear disasters were caused.
Methods: Fukushima Daiichi Nuclear Plant explosions, which followed a mega-disaster of the Higashinihon earthquake, the same level of the Chernobyl incident, is mainly focused, compared with other nuclear disasters: ie, The JCO criticality incident, 1999 (2 direct deaths), the Mihama nuclear plant's accident 2004 (ruptured secondary water cooling system, lead to 5 deaths), the Kashiwazaki-Kariwa plant damage in the Chuuetsuoki earthquake, 2007 (no fatalities) in Japan, the Chernobyl incident, 1986 in Ukraine, etc.
Results: Although the medical role of a disaster surgeon is especially important during such mega-disasters, trauma doctors seemed useless in this nuclear disaster. Many serious problems were apparent, which are as follows: 1) Inappropriate basic preparedness and education against the special disaster (nuclear disaster), i.e most members of Japan DMAT team seemed to be laypersons. 2) Insufficient transporting system to the weak/vulnerable people. Many aged inpatients seemed to have survived if appropriate triage and smooth transportation system had been established. 3) The myth of 'absolute safety' of nuclear plants, which had been strongly declared before the mega-disaster. 4) Lack of long-term follow-up and care system, including mental support, detection of thyroid tumor, etc.
Conclusion: In order to cope with the mega and complex disasters, an academic approach from various points is also essential. It is insufficient to take makeshift measures or use cheap tricks. Moreover, the feeling of security and safety of people, or people's reliability is also important to protect the society. Philosophy during a mega-disaster should be reviewed, and the disaster medicine compendium should be realized to be important.
Prehosp Disaster Med 2017;32(Suppl. 1):s9
doi:10.1017/S1049023X17000528

Our Preparedness for Radiological Disaster as the City Suffered from the Atomic Bomb Attack, Japan

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Study/Objective: Nagasaki University Hospital was designated as a core hospital for nuclear disaster in the west part Japan. Our purpose is to show the process of organizing the team and getting connected with several facilities around our hospital.
Background: Nagasaki Medical College, a predecessor of Nagasaki University Hospital, is the only medical university hospital which suffered in the atomic bomb attack. We have continued medical campaigns and research activities since August 9, 1945. In Japan, medical facilities are chosen and

distinguished by ability for correspondence on nuclear disasters. The Nagasaki University Hospital was designated as two centers for high-radiation-exposure medical care, disaster medicine, and comprehensive support for nuclear disaster. We established the Headquarters for Nuclear Disaster Response and Preparedness in Nagasaki University (NDRP) and prepare for emergencies regularly. The staff of the headquarters are mainly concentrating their power on the network construction and joint training with each facility.

Methods: We participated in a wide area training, which included 7,300,000 residential area, and carried out conveyance and accommodation of injured patients. The training content is as follows: The leak of nuclear-reactor coolant occurred and brings about the full-scale emergency. One radiation worker suffered contusions and was conveyed to a medical institution close to the plant; the patient received a decontaminate pollutant as the initial treatment, while Nuclear Disaster Response and Preparedness (NDRP) called and dispatched the staff according to the government's request. A medical support team was sent there by air route, contacted the medical team of the stricken area, and carried the patient to our hospital for decontamination and medical treatment. The staff at the university hospital installed hot and cold zones and performed proper estimation and procedure.

Results: We have several experiences regarding cooperation with each organization.

Conclusion: We are trying to develop our hospital to be the core hospital which is specialized in nuclear disaster.

Prehosp Disaster Med 2017;32(Suppl. 1):s9-s10
doi:10.1017/S1049023X1700053X