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The Introduction of an Education and Training Course for Recruiting Members for A Local Disaster Medical Assistance Team in Shizuoka Prefecture in 2017

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Short Communication

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Abstract: The large number casualties resulting from the 1995 Great Hanshin and Awaji Earthquake created a massive demand for medical care. Thus, the Japanese government decided to establish Japan Disaster Medical Assistance Teams (J-DMATs), as "mobile, trained medical teams". As J-DMATs have performed outstandingly during large-scale disasters, many other medical associations have attempted to establish J-DMAT-like medical teams of their own. Shizuoka Prefecture also started establishing a local-DMAT in 2016. An education and training course for recruiting members for a local disaster medical assistance team in Shizuoka Prefecture were held at Shizuoka General Hospital in 2017. This course contained lectures, simulation drills, skills training and a test. The course was a 2-day course of approximately 18 hour in during in which 33 people participated. At the end of the course, all participants underwent and passed their examinations. A questionnaire survey showed that all participants were highly satisfied with this course. In the event of a catastrophic large-scale disaster, all resources—both material and human—will be needed in order to ensure an early favorable outcome. In the near future, the coordinated and combined use of local- and J-DMATs will be beneficial, helping significantly reduce human suffering in large-scale disasters.
Keywords: Japan Disaster Medical Assistance Team; local; prefecture; recruit

INTRODUCTION

The large number casualties resulting from the 1995 Great Hanshin and Awaji Earthquake created a massive demand for medical care. Thus, the Japanese government decided to establish Japan Disaster Medical Assistance Teams (J-DMATs), as "mobile, trained medical teams that can be rapidly deployed during the acute phase of a sudden-onset disaster" [1]. J-DMATs consist of doctors, nurses and co-medical personnel dispatched to an affected area immediately after a disaster to provide acute care to victims. Although one J-DMAT consists of only 4 or 5 members in order to easily move to the designated area as quickly as possible, 30 to 50 J-DMATs are assembled to help at the disaster base hospital (DBH) and aeromedical evacuation (AE) staging bases or airports in an affected area to stabilize and transport injured patients [2]. J-DMATs also play an important role in gathering medical information in a very acute phase and inputting it into the emergency medical information system (EMIS) to map out a strategy for providing lifesaving interventions and coordinating their activities [2]. As J-DMATs have performed outstandingly during large-scale disasters [3-5], both natural and man-made, many other medical associations have attempted to establish J-DMAT-like medical teams of their own [6-8].

Shizuoka Prefecture is located approximately 130 km from Tokyo. Part of Shizuoka Prefecture is located on the border between the Philippine Sea and the Eurasian plate. In this area, huge earthquakes, known as Tokai earthquakes, have occurred every 100 to 150 years historically. In addition, the historical literature shows that great Nankai Trough earthquakes occur in western Japan—including Shizuoka Prefecture—with an interval of approximately 100 years. These earthquakes have the potential to cause thousands of deaths, hundreds of thousands of injuries, and extensive damage to buildings, leaving cities, including Shizuoka, devastated [9]. Accordingly, Shizuoka Prefecture needs trained teams of medical staff, like J-DMATs, ready in the event of large-scale

disasters like great Nankai Trough earthquakes. However, at present, J-DMATs have only been established in two areas (Tokyo and Kobe) because of insufficient numbers of instructors for J-DMATs and budget deficits. As such, local governments have started to put together their own DMATs [10, 11]. As of 2017, 22 out of 47 local governments (prefectures) in Japan have established local-DMATs for themselves.The Japanese government also allows local-DMATs to be promoted to J-DMATs by attending an additional workshop. Shizuoka Prefecture started establishing a local-DMAT in 2016. An education and training course for recruiting members for a local disaster medical assistance team in Shizuoka Prefecture were held at Shizuoka General Hospital in 2017 (Figure 1). This course contained lectures, simulation drills, skills training and a test supported by 57 staff members, including J-DMAT instructors and 22 volunteers acting as mock patients in skills training sessions (Table 1, Figure 2). The course was a 2-day course of approximately 18 hour in during in which 33 people participated. All participants belonged to DBHs in Shizuoka Prefecture. Participants with certification from the Japan Prehospital Trauma Evaluation and Care program were preferred, but such certification was not required.

At the end of the course, all participants underwent and passed their examinations. A questionnaire survey showed that all participants were highly satisfied with this course. In addition, the participants successfully established a relationship with the staff members, including the J-DMAT instructors.

CONCLUSION

In the event of a catastrophic large-scale disaster, all resources—both material and human—will be needed in order to ensure an early favorable outcome. In the near future, the coordinated and combined use of local- and J-DMATs will be beneficial, helping significantly reduce human suffering in large-scale disasters.

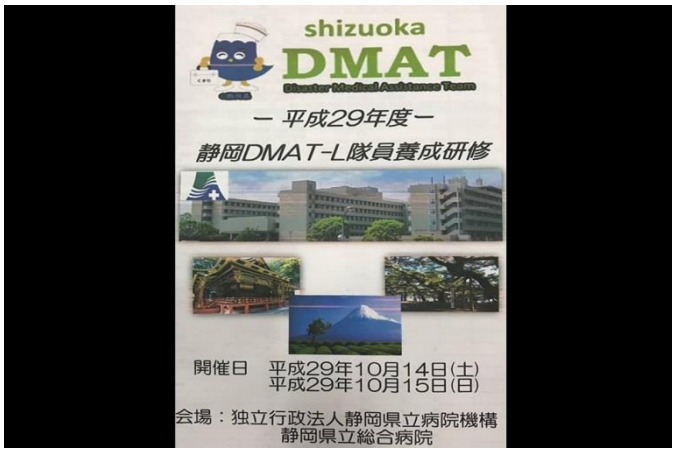
Conflict of interest statement

The authors declare no conflicts of interest in association with this study.

Table−1: The curriculum of the mass casualty life support course established by the Japanese Association for Disaster Medicine

1. Lecture
   Disaster medicine and mass casualty management
   Command and control of mass casualties
   - Introduction to mass casualty management
   - What is a Disaster Medical Assistance Team (DMAT)?
   - Principles of mass casualty management

   Command & Control, Safety, Communication, Assessment, Triage, Treatment, Transportation
   - Crush syndrome
   - Emergency medical information system (EMIS)
2. Simulation drill (desk-based)
   - The role of the medical responder to a disaster scene
   - Management of first-aid station
   - In-hospital disaster management
   - Co-operation with Japan DMAT
3. Skills training
   - Management of triage tags
   - How to use the EMIS
   - How to use a wireless radio
   - Medical activities on the scene
   - Operation of a first-aid station
4. Test (Answers to queries), questionnaire survey



Fig−1: Pamphlet cover. Shown here is the cover of the pamphlet for the education and training course for recruiting members for a local disaster medical assistance team in Shizuoka Prefecture in 2017.

Fig−2: The simulation drill. Participants were divided into six groups, each of which attended to mock wounded patients.

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