Report from Onagawa Japan:
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Ayaka Daizo
4th Year Medical Student
Kanazawa University
Kanazawa, Japan

Eisuke Muto
4th Year Medical Student
Tokyo Medical University
Tokyo, Japan

Konomi Ueshiba
4th Year Medical Student
Kagawa University
Kagawa, Japan

Ayaka Daizo is a 4th year medical student at Kanazawa University. She is the Academic Officer of the Asian Medical Students Association Japan (AMSA Japan). Ayaka enjoys traveling, art and movies, and hopes to work in general medicine and palliative care.

Eisuke Muto is a 4th year medical student at Tokyo Medical University. He is a website manager of AMSA Japan and enjoys photography and taking naps. He hopes to become a paediatrician.

Konomi Ueshiba is a 4th year medical student at Kagawa University. She is the Editor of Asian Brothers 2010-2011, the official publication of AMSA Japan. She enjoys music as a hobby and in the future hopes to be a family physician or a paediatrician.

BACKGROUND

At 14:46 on Friday 11 March 2011, a magnitude 9.0 earthquake struck Japan; the epicentre located 81 miles east of Sendai, the capital of Miyagi prefecture. The tremor triggered a massive tsunami and seriously damaged the Tohoku and the Kanto districts. Even now the aftershocks continue everyday.

We followed a volunteer team from the Japan Association for Development of Community Medicine (JADCOM) to the Onagawa municipal hospital. The team consisted of doctors, nurses, caregivers, pharmacists, physical therapists and medical assistants.

Figure 1. Devastation caused by tsunami in Onigawa, Miyagi Prefecture, Japan.

Onagawa is a town in Miyagi prefecture on the eastern coast facing the Pacific Ocean. The town is approximately 65.8 kilometres squared, with a population of 9965. The area boasts a successful fishing port. The Onagawa nuclear power plant is located in the southern part of the region.

Onagawa was hit by the highest tsunami in the disaster. The tsunami was as high as 17 to 25 metres. The inland area of the city was inundated and completely destroyed (Figure 1). Four hundred and fifty four people are dead and 744 people are missing; and at least 1900 people are now dwelling in refuges and temporary shelters.

PROVISION OF HEALTH SERVICES

Since the tsunami, medical care is being provided by a network of facilities and organisations. After the tsunami, Onagawa municipal hospital transformed into a unique medical facility. Except for the first floor which was damaged by the tsunami despite being twenty metres above the sea (Figure 2), the hospital functions as a dispensary, an inpatient's ward and a nursing home. The adjoining Ishinomaki Japan Red Cross Society (IJRCS) hospital provides tertiary medical services, while the municipal hospital provides primary care services and receives elderly patients who need special care, or face difficulty living with others in IJRCS or in the shelters. Medical staff from other regions as well as the Japanese self defense force also provide medical care. Every three or four days, multidisciplinary meetings are held so that there is a coordinated approach to delivery of health services in the spirit of cooperation (Figure 3).

Figure 2. Backdoor of the Onigawa municipal hospital.

IN THE REFUGE SHELTERS

Norovirus, influenza and other infectious diseases are prevalent amongst many survivors of the tsunami especially those dwelling in temporary shelters. At the shelters we were involved with the clean-up operation. This involved many tasks including disinfecting the floors, clearing spaces so that they could be habitable, making partitions for privacy and prevention of disease, and keeping the floors warm. We also supported the doctors, nurses and pharmacists when they performed health checks; and also provided social support by playing with the young and talking with the elderly.

In the shelters there are more than 700 internally displaced people, as well as medical professionals, city officers, members of the self-defense forces, and professional volunteer groups from non-disaster area. Almost all the people are very anxious about their daily life, have no hope for their future, and are beginning to feel the stress of the situation. Sometimes they are enthusiastic and cooperative for projects, other times irritated, sickly and self-centered. Many suffer from acute stress disorder and pollinosis, and several suffer from norovirus and influenza.

Figure 3. Multidisciplinary meeting

IN THE HOMES OF VICTIMS

We observed two types of home visits (Figure 4). On the first type of visi,t we accompanied a doctor to the home of an elderly woman who had died, and observed a post-mortem inspection. After the tsunami, policemen became victims themselves as they were burdened with the significant number of postmortem inspections. On another visit, staff from the health welfare section in Onagawa, including a public health nurse and doctor, visited victims' homes. The tsunami had swept away and destroyed multitudes of health ledgers and records. On these home visits staff examined victims' health conditions and household composition, to develop a database of information and to also provide necessary information to support victims. Lack of information hinders their access to appropriate support provided in the refuge shelters. Specific problems include patients with chronic diseases becoming anxious about discontinuation of their medication, diabetic patients facing difficulties with control of their blood sugar because the distributed food is full of carbohydrates, and the necessity of sharing toilets outside makes them hesitant about using laxatives.

MANAGING THE HEALTH OF THE INDIVIDUAL HOLISTICALLY

We try our best to provide the people with the necessities of basic life (food, clothing) and medical care. However their quality of life is also impacted by their living environment (access to clean water, well balanced food, warm living spaces), as well as regular provision of daily information and instilling a sense of hope and the prospect of reconstructing their lives and the community in which they live. Appropriate measures are also required to deal with survivors' guilt and post traumatic stress disorder.

Figure 4. Home visits are fraught with many challenges, including assessing the homes themselves!

It is important not to forget the health of health workers and volunteers in the region. Addressing their physical and mental health is also important. Many have been working days on end without sufficient rest.

WHAT CAN MEDICAL STUDENTS DO?

Regular reports to other countries prevents forgetfulness of victims and improves measures against disasters in the Asia-Pacific region. In fact, we met a man who survived the tsunami by following the lessons he learnt from the 2004 tsunami in Aceh, Indonesia. The man's house was on a hill ten metres above sea level. He had previously watched a programme about the 2004 tsunami and learned how people survived the disaster. Many of his neighbours remained in their homes despite the tsunami warnings, believing that they would be safe. The man fled his house and survived, while those who remained behind perished.

Medical students can bridge the gap between citizens, the health care sector, and the administrative sector. We need to look beyond an individual's health needs and consider their total wellbeing; we can make a huge impact on the total wellbeing of adult and paediatric patients through a simple chat or by playing with them.

Figure 5. The authors (L-R) Ayaka Daizo, Konomi Ueshiba, and Eisuke Muto.