

“Great Disaster in Fukushima --- Earthquake, Tsunami and Radioactivity; Lonely Battle at the Relief Activities”

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(English Translation by Red Cross Nuclear Disaster Resource Center)

~~~ Radioactive contamination! Experienced a limitation on 'anytime, anywhere' ~~~

I was at home when the earthquake started. I said to myself "I hate to be sandwiched between the buildings, but I have to go now!", and headed to the hospital. Here I will summarize what I felt together with the lessons that I learned from the relief activities as my personal opinions.

- The evacuation center at Fukushima High School was well managed, considering the evacuees' mind, considering that the facilities were divided based on the types of evacuees, i.e. pregnant women and infants, elderly people who needed nursing, and others.
- The "Maternal and Child Health Handbook" was so helpful for prenatal checkup. Pregnant women should carry it with them all the time.
- The training and education for the disaster relief conducted at the Red Cross Hospital helped me a lot in the actual situation. Especially the examination training without advanced equipment was useful in the disaster situation.
- In the early stages, all the relief teams from other prefectures, except Fukushima and Yamagata, had left to go out of Fukushima because of the nuclear power plant accident. Then it was really a lonely battle for us.
- I took care of the elderly evacuees from the nursing facility and transferred them to Date Fureai Center. Because of the shortage of the human resources and the first-aid materials there, we couldn't take care of them as much as we wished. I felt really sorry for them.
- One of the reasons we couldn't do what we could have done was the radioactive contamination. I felt "bitterness" but had no place or no one to vent on.

The ward might collapse, but I must go!

The earthquake occurred when I was at home. The 6-story building was making loud metallic noises. I was thinking "The big one like the Great Hanshin-Awaji Earthquake had come to Fukushima. The building may collapse." I descended through the shaking emergency stairs while praying that the stairs would not break in the middle. I was involved in the relief activities at the Great Hanshin-Awaji Earthquake Disaster and I was clearly remembering the flattened buildings and hospitals at Sannomiya and Higashinada in Kobe. Therefore, when I got to the hospital and approached the old Obstetrics and Gynecology Ward, I felt that "I hate to be sandwiched between the buildings" and to be quite honest I hesitated for a split second. I said to myself "Everybody is in the ward. Terrible things are happening. What am I waiting for?" Then I stepped forward. This was my initial feeling at that time. The relief activities I experienced thereafter were entirely different from what I had gone through at the Great Hanshin-Awaji Earthquake Disaster.

Terrible things are happening in Fukushima?

I was assigned as a member of the Relief Team 2 and the team was dispatched on the morning of March 14th. First, we went to the Fukushima Prefecture Disaster Response

Headquarters. There was a busy atmosphere. Many cameras and lighting fixtures were set up in the hallways and the stairways of the Headquarters located in Jichi-Kaikan. The media being fatigued were sitting down on the stairs. Now if I think about it the headquarters might have been in difficult situations, and they might be making decisions on how to handle the evacuation and the relief activities against the disasters caused by the earthquake, tsunami and the radioactive contamination. However without knowing about the Fukushima Daiichi Nuclear Power Plant accident or its detailed impacts to Fukushima yet, I was still continuing my relief activities. I had no idea how serious the situation really was.

### The facts of my relief activities!

Here I would like to summarize what I deeply felt through my relief activities at the evacuation center and what should be utilized in the future. Please note that these are my personal opinions.

#### 1. Divide the facilities according to the types of the evacuees

What impressed me at the evacuation center at Fukushima High School was that the facilities were divided into three locations since the beginning of the evacuees acceptance. They were, for the families with pregnant women and infants, for the elderly or sick people who needed nursing care, and for others. The staff grouped the evacuees from the initial stage. Thing like this could not be done without prior training and I was really impressed.

Children are prone to have big mental and physical shocks from a disaster, and this tends to influence their growth process seriously. Therefore they must be given higher priorities for the protection under abnormal conditions after a disaster. Also I noticed that the control against infection, which tends to spread at the evacuation center, was well managed by the facilities separation. And so called "Transmission-based Precaution", one of the basics of the infection control, was in place by blocking infection routes.

#### 2. Pregnant women should always carry the "Maternal and Child Health Handbook" with them

While I was performing prenatal checkups at the evacuation center, I realized how important the use of the Maternal and Child Health Handbook was. All of the pregnant women were new to me and I had no prior medical information for them. But those who carried the Maternal and Child Health Handbook were different – the handbook had full medical information for pregnant women such as basic information and medical history. Therefore it worked as a regular personal medical record. I would like to recommend that expected mothers should always carry the handbook with them because disasters can come anytime without a notice.

#### 3. The training tailored to real disasters had been fully utilized!

The training and education for disaster preparedness given at the Red Cross Hospital were extremely useful. As a maternity nurse, I performed prenatal checkups to three pregnant women (in second trimester pregnancy and third trimester pregnancy). I was able to check the fetal heart beat by using Traube's stethoscope and confirmed the wellbeing of the fetus. One pregnant woman appeared to have threatened premature delivery symptoms, I urged her to visit and take examinations at the Fukushima Red Cross Hospital. As the result, she was able to get the treatments for threatened premature delivery. You, as readers, might think that it was

natural for me, as a maternity nurse, to be able to determine the medical conditions of the expected mothers and fetus. However, to tell the truth, this became possible because of the training. Nowadays the fetal heart beat is examined by high tech ultrasound diagnostic equipment and therefore, Traube's stethoscopes are no longer needed. However, at the Fukushima Red Cross Hospital Traube's stethoscopes had been regularly used in conjunction with ultrasound diagnostic equipment for outpatients of Obstetrics and Gynecology. In addition, maternity nurses were responsible for examining pregnant outpatients. This resulted in the early discovery of an abnormal situation of the pregnant woman and the necessary treatments.

The medical relief in disasters is an important Red Cross activity, and the education for it is the essential item for nurses at Red Cross Hospitals. In normal time high tech medical treatments and nursing are naturally important, but the training and education for real disaster situations are possible only in the normal time. Under a power failure situation, none of the high tech equipment can work. So now I recognized that such Red Cross educations, including the training for nursing and maternity techniques only with portable equipment as well as for providing safety and security calmly in any conditions really helped the relief activities this time.

#### 4. Radioactive contamination --- endure by ourselves!

What I felt in the relief activities in Fukushima was that it was a lonely battle by the Fukushima Chapter together with the Yamagata Chapter of the Japanese Red Cross Society. The disaster affected over three prefectures, Iwate, Miyagi and Fukushima. Additionally in Fukushima radioactive contamination caused by Tokyo Electric Power Company Fukushima Daiichi Nuclear Power Plant was an issue. Because of that all outside relief teams from nationwide Red Cross Chapters (except from Yamagata) had left to go out of Fukushima when we needed their help the most in the beginning of the disaster. During the period when people were confused and had to work day and night, we were forced to fight the lonely battle. I had a really mixed feeling at that time. The disaster relief was one of the major activities of the Japanese Red Cross, and I always thought these activities to be "Anytime, Anywhere", so honestly I was shocked. However, by the same token, I was encouraged to "do whatever I could under the circumstances."

#### 5. Leaving the evacuees behind?!

The activities at Date Fureai Center was a really bitter one where I felt that the limitation of our capability as a relief team. We departed for there past midnight on the 16th. 16 hours had already passed since the morning departure on that day. We had a total of eight members on the team -- one member each from Aomori DMAT and Fukui DMAT, and the rest from the Fukushima Red Cross Hospital Relief Team. We waited for the evacuees at Fukushima Prefectural office, then a couple of buses (Joban Kotsu and Fukushima Kotsu) arrived. The situation inside these buses was beyond what I could ever imagine. I believe the evacuees were elderly people from a nursing facility and hospital patients. The condition of one evacuee was so bad that I was unable to palpate the pulse. Some evacuees were lying down over the other evacuees in the aisle; they were unable to move by themselves. Some other evacuees were lying down even underneath the seats. Initially I thought they moved under the seats by themselves, but while I was transporting them I realized that their bodies had stiffened like sticks and then they had fallen down from their own seats (I guess they were sitting down on the seats initially). At that moment in the terrible bus with no space to stand I felt as if I was in a

different world, somewhere away from Japan. I was not quickly able to accept that I was actually standing in the middle of the real situation in Fukushima.

After our buses arrived at our destination the evacuation center in Date Fureai Center, we moved the evacuees with the cooperation of the fire department members from the buses to the facility. It was snowing outside. There were no heaters in the large and freezing hall of the evacuation center. We spread vinyl mats on the hall floor and covered them with the emergency supply blankets. Then we laid the evacuees down and covered them with the additional layer of blankets. With this method a total of 54 evacuees were able to stay in the evacuation center. However, the condition of the facilities was far from the ideal, and it was like a summer camp of a high school sport team, or just like a field hospital I had watched on TV before. I felt miserable to see the poor condition of the evacuation center even after it was prepared and set up by the hard work of many people, in this modern world that is filled with abundance. I had no choice but to do nothing. I had to leave an empty hyperalimentation package still connected to the tube because there were no refill supplies. In the meantime I spotted someone in the restroom who was drinking pooled water in a bucket with floating fallen leaves. When I recognized that she was "Drinking pooled water in a bucket?" I thought "She must be starving!" My brain finally woke up and started functioning, saying that "Don't stop. Move!" I told myself "Don't look at what I can't do anything about or stop. Do whatever I can do." Then I started hydration procedures and changing diapers using the wet tissues and paper diapers on hand. We didn't carry any foods or paper diapers, so there were not enough materials. Also there was no extra stock of food or paper diapers at the evacuation center either. Therefore, when we were leaving there, my heart was full of painful thoughts that "I am sorry for not being able to do what I wished I could," and said to myself that "Aren't we leaving them behind?"

I think the real issues in the relief activities this time were that we were unable to grasp what kind of conditions of the evacuees we were going to deal with, and that caused a shortage of the materials. However, considering it should be understandable that the information might not be always available in advance in the case of a severe disaster like this. It is necessary to enhance the system for the relief in the night and to fill it with enough relief supplies. At the busiest and the most critical time immediately after a disaster, night shift relief teams should be needed without doubt, and more than one relief team should be preferable. Also in regards to the foods and other supplies, I wish we could also prepare ones for children, elderly persons and for patients. Unfortunately one of the reasons why we were unable to accomplish such a simple task of Red Cross activities was the radioactive contamination. I felt "bitterness" that I could not vent anywhere.