

Feature 1

CSR in Disasters 4.17

Immediately after the Great East Japan Earthquake of March 11, 2011, Teijin Home Healthcare Ltd., in collaboration with medical institutions and patients' associations, was involved in urgent efforts to verify the safety of long-term oxygen therapy (LTOT) patients and distribute portable oxygen cylinders to these patients. One year on, we take a look back at our response to the earthquake, and think about what CSR the home healthcare business should fulfill in disasters.

Home Healthcare Support in the Great East Japan Earthquake



March 11 Great East Japan Earthquake strikes (at 14:46)

Four minutes after the quake hit, in accordance with the disaster countermeasures manual, Teijin Home Healthcare Ltd. set up a disaster countermeasures headquarters at the Sendai branch office and a disaster support headquarters at the Tokyo head office.

Power outage throughout the Tohoku region

Utilizing D-MAP, a disaster response and support map system, a list of 25,000 patients living in the disaster areas was prepared 10 minutes after the earthquake. Approximately 50 staff members from the head office disaster support headquarters started calling LTOT patients to verify their safety.

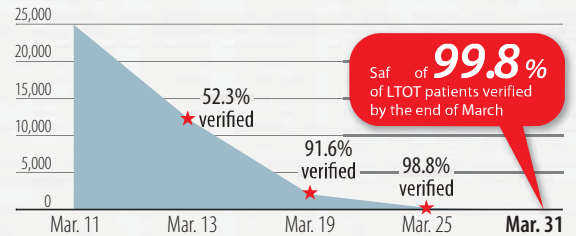
Teijin Home Healthcare Ltd.'s Ishinomaki satellite office is inundated by the tsunami.



At the disaster countermeasures headquarters, damage to oxygen cylinder filling stations was checked as calls to verify safety continued. The Kanagawa branch office was designated as a depot for oxygen cylinders, and arrangements for oxygen cylinders/concentrators for patients and medical institutions began.

Progress of Safety Verification for All Affected Areas up to March 31, 2011

(No. of LTOT patients yet to have safety verified) (Persons)

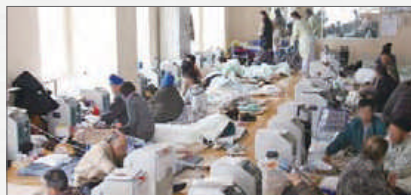


March 13

Tokyo Electric Power Co. (TEPCO) announces planned power outages from the following day

In response to TEPCO's announcement, we started notifying LTOT patients affected by the planned power outages

A temporary distribution base was set up.



Tohoku Electric Power announces planned power outages from the following day

A temporary base for distribution of oxygen concentrators and other items was set up in Yamanashi.

March 15

Oxygen concentrators were installed for patients who evacuated to Ishinomaki Red Cross Hospital (50 units) and at 17 other institutions in Miyagi (112 units).

Safety verification of LTOT patients moves into full swing with staff from Sendai office making direct visits to homes and evacuation shelters.

March 16

Use of the mass media (television, radio, newspapers, etc.) to alert people of our safety verification efforts begins in collaboration with Tohoku Hakuchokai, a patients' association.

March 18

Safety of 99.8% of LTOT patients is verified by the end of March

March 31

March 12 Explosion at Fukushima No. 1 Nuclear Power Plant; Evacuation advisory is issued for all areas within 20 km radius



Call center

A disaster-area support plan was created, support personnel were dispatched to the six Tohoku prefectures and Ibaraki, and the number of staff at the call center was increased. Due to distribution companies cancelling any delivery of cargo to disaster areas, we used chartered truck transportation to send oxygen cylinders.

The first group of support personnel arrived in Sendai and started distributing oxygen cylinders to high-priority LTOT patients in the areas affected by the power outages.

Activities in the Fukushima area continued while checking radiation exposure with radiation meters.



March 14

TEPCO implements the planned power outage

Support personnel started arriving in Tohoku disaster areas from all over Japan.

Cooperation between our offices and cylinder dealers in planned power outage areas helped to improve the oxygen cylinder distribution system.

Medical equipment supplied to the Tohoku region (as of the end of March 2011)

Oxygen concentrators	603 units
Oxygen cylinders	17,173 units
Mask respirators	74 units
Batteries for respirators	284 units

Teijin Home Healthcare Ltd. is a subsidiary of Teijin Pharma Limited, a core company of Teijin Group's medical and pharmaceutical business. Among other products, the company supplies oxygen concentrators for long-term oxygen therapy (LTOT). Immediately after the Great East Japan Earthquake, Teijin Home Healthcare Ltd. extended full support to LTOT patients in the disaster areas with the Sendai and Fukushima sales offices playing a central role.

LTOT is a method of providing oxygen inhalation at home for a long period of time to patients who cannot take in enough oxygen into their bodies. It enables patients to return to their family lives and their workplaces, enhancing their quality of life. There are estimated to be approximately 150,000 patients in Japan.

In this stakeholder dialogue, we are joined by Dr. Yanai of the Ishinomaki Red Cross Hospital, as well as Mr. Takahashi and Mr. Ohtomo, chairman and vice chairman of Tohoku Hakuchokai, an association for patients with respiratory diseases. In addition to taking a look back at the response to the earthquake, we talk about what is required to prepare for future catastrophes and what CSR the home healthcare business should fulfill in disasters.

Date & Time	Wednesday, March 28, 2012 From 3:00 to 5:00p.m.
Venue	Sendai sales office meeting room, Sendai branch office, Teijin Home Healthcare Ltd.

Working with the Patients' Association to Urge Mass Media to Alert Patients to Safety Verification Activities

Mr. Kishida (MC): Over one year has passed since the Great East Japan Earthquake. When and where the next catastrophe will strike

is unknown, and continued vigilance is required in respect to an earthquake in the Nankai or Tonankai troughs. Today, this group of people, who have all made dedicated efforts in the disaster area, has been gathered to discuss what we can do and what preparations are necessary for future disasters. I invite everyone to share personal experiences, make requests to Teijin Pharma and Teijin Home Healthcare Ltd., and discuss future challenges and any other relevant issues.

Mr. Matsumoto: First of all, as the manager of Sendai sales office, Teijin Home Healthcare Ltd., I would like to thank Dr. Yanai of Ishinomaki Red Cross Hospital, as well as Mr. Takahashi and Mr. Ohtomo, chairman and vice chairman of Tohoku Hakuchokai for all the support extended to us. A telephone conversation with Dr. Yanai on March 11, the day of the earthquake, helped me grasp the situation in faraway Ishinomaki. Mr. Takahashi and Mr. Ohtomo were of great assistance in helping verify the safety of patients. At Teijin Home Healthcare Ltd., when there is an earthquake of lower-5 or higher intensity, in order to verify safety and decide the best support method, we use *D-MAP*, an originally developed disaster response and support map system that automatically outputs a list of Teijin medical equipment LTOT patients in the affected areas. However, there were some patients that we had difficulty in contacting and I would like to thank you again for your assistance in that regard.

Mr. Ohtomo: At that time, I was also urgently moving from place to place to verify people's safety but just as I was becoming aware of my limitations, Teijin Tokyo head office called asking for help in verifying the safety of patients. In response, I proposed using television and other mass media to alert people. This proposal was accepted, so on March 18 as there was no transportation available then, I walked to NHK Sendai broadcast station, the nearest broadcast station from my house. Apparently, NHK received many similar requests to ours. In our case, based on our position as a



Mr. Ryosei Kishida Senior Manager and Assistant to the Head of the Home Healthcare Sales Division Teijin Pharma Limited	Mr. Ryo Ohtomo Vice Chairman Tohoku Hakuchokai (patients' association)	Mr. Akira Takahashi Chairman Tohoku Hakuchokai (patients' association)	Dr. Masaru Yanai Respiratory Department Manager Ishinomaki Red Cross Hospital	Mr. Tadaaki Matsumoto Manager Sendai Sales Office Teijin Home Healthcare Ltd.	Mr. Toshiro Miyazaki Manager Fukushima Sales Office Teijin Home Healthcare Ltd.
--	---	---	--	---	---

respiratory disease patients' association, the broadcast examination committee approved our request. I also went to the Miyagi Prefectural Office to ask for a request to be made for the mass media's cooperation. Our information was published in newspapers on March 19 and also broadcasted through newspaper-affiliated stations. Patients soon started contacting us saying "I heard the broadcast" or "I read it in a newspaper." We could thus alert patients in the six Tohoku prefectures that we were verifying safety.

Mr. Matsumoto: The success in approaching the mass media was only possible through the assistance of Tohoku Hakuchokai. The message was broadcast by NHK late at night on March 18. By the following day, we had made contact with approximately 92% of patients and one week later, this figure rose to 99%. When we visited patients' homes to check oxygen concentrators and other equipment, patients made comments such as, "I was relieved to see it on television" and "I felt I had Tohoku Hakuchokai supporting me."

Mr. Kishida: We have learnt through our experiences this time that, as business operators, when a large disaster occurs we must approach mass media in collaboration with patients' associations. In this sense, we have discussed in our company that it is important to keep in close contact with patients' associations in various areas on a routine basis.

A System is Needed to Determine LTOT Patients Beyond the Boundaries of Any Medical Institution or Business Operators

Mr. Kishida: Mr. Takahashi, as a representative of the patients' association, what are your thoughts about the earthquake response?

Mr. Takahashi: What I am most concerned about is the so-called earthquake-related death. These deaths were an issue that came to the fore after the earthquake this time and include those who



Mr. Akira Takahashi

Chairman
Tohoku Hakuchokai (patients' association)

Mr. Takahashi has given many rehabilitation lectures advocating the importance of respiratory rehabilitation. Many patients were able to get through this crisis using the breathing method they had learnt.

died after deterioration of health while living in an evacuation shelter. We think that some of these deaths may have included home therapy patients. If first-aid stations had been set up in evacuation shelters, patients would have been able to receive treatment sooner and some deaths may have been avoided. I think it is important to make the government understand this.

Mr. Ohtomo: In Sendai, I considered it a problem that respiratory disease patients were not allowed into secondary evacuation shelters. Secondary evacuation shelters are facilities that accept and support people who need nursing and other care. Admissions are checked by a nurse and approved by the



Mr. Ryo Ohtomo

Vice Chairman
Tohoku Hakuchokai (patients' association)

After the Great East Japan Earthquake, Mr. Ohtomo made urgent efforts through the mass media to alert respiratory disease patients of safety verification activities.

manager concerned, but LTOT patients were not eligible. In other words, recognition of this disease is very low. In my role as a consultant for Sendai city, when I was asked by the mayor about any problems, I responded, "Please make people who use an oxygen concentrator in daily life eligible for the secondary evacuation shelters."

Mr. Kishida: Dr. Yanai, as a doctor, what is your opinion about this situation?

Dr. Yanai: I regret to say that few people understand the situation of LTOT patients. Nurses and physiotherapists are permanently stationed at the welfare evacuation shelters* and doctors move between shelters to give support to those who need nursing care, but the city officials were not fully aware of LTOT patients. I would like the city to have a proper understanding of LTOT patients. In the case of dialysis patients, this has been achieved. Including the degree of emergency needs, the status of LTOT patients must be understood beyond the boundaries of businesses and medical institutions. In a crisis, the effect of the disaster could be reduced if the required information was made available to local social workers and the patients' association. Even if disasters cannot be prevented completely, in order to minimize damage, we must anticipate various cases and prepare for occurrences beyond these anticipations. We fully learnt this time that the more we are prepared, the less damage we will suffer. This will lead to reducing disaster-related deaths.



Dr. Masaru Yanai

Respiratory Department Manager
Ishinomaki Red Cross Hospital

Dr. Yanai supported LTOT patients by installing a LTOT station at Ishinomaki Red Cross Hospital, the only medical institution that escaped major damage in the affected areas.

* Welfare evacuation shelter: A kind of secondary evaluation shelter where elderly people who require nursing care, physically impaired people, pregnant women and others are given special consideration.

Mr. Takahashi: In some areas, the government is supposed to convey information to social workers, but in some respects it is difficult for the government to always grasp the status of patients due to privacy and other issues. We also tried to have patients register with a neighborhood association, but hardly any patients registered of their own accord. For the time being, it may be the home healthcare dealer supplying oxygen concentrators and cylinders that has the best understanding of patients.

Mr. Kishida: The actual situation may be so, but as Dr. Yanai pointed out, it is necessary to have a record of all patients in each area beyond the barriers of medical institutions and businesses. In my role as head of the home oxygen task force of the Japan Industrial and Medical Gases Association, I went to the Pharmaceutical Affairs Section of the Tokyo Metropolitan Government to ask about the actual situation of patient registration. I learnt as a result that although patients requiring dialysis and patients with amyotrophic lateral sclerosis are registered, there is no registration for respiratory disease patients.

Mr. Miyazaki: I think it is important to use some kind of method so that government officials understand the suffering of respiratory disease patients. One method may be to measure blood oxygen saturation levels with a simple fingertip instrument, and have people experience the strain when the level falls below 90%.

Collaboration Beyond Company and Organizational Barriers to Establish an LTOT Station in a Hospital

Mr. Kishida: Dr. Yanai, I understand that the Ishinomaki Red Cross Hospital used one of the rehabilitation rooms as an LTOT station. Please tell us about it.

Dr. Yanai: The practice of business operators supporting patients in disasters started with Teijin Home Healthcare Ltd. and others in the Hanshin–Awaji earthquake. As a system, this proved to work fairly well, as was also demonstrated in the Niigata–Chuetsu earthquake, the Chuetsu offshore earthquake and the Iwate–Miyagi inland earthquake. On the other hand, although the hospital had prepared for an earthquake predicted to occur offshore of Miyagi, we never expected such a widespread disaster nor the situation of many respiratory disease patients coming to the hospital for oxygen. The number of people that came rose from 10 on the first day to 26 the next day and then to 29 on the day after that until we couldn't respond. It was in this situation that I had the idea of setting up an LTOT station, on the basis that the rehabilitation center had electricity and thinking that it could be used by many LTOT patients. Thus, I consulted Mr. Matsumoto of Teijin Home Healthcare Ltd. and 50 oxygen concentrator units were installed on March 15.

Mr. Matsumoto: I think the prompt support was possible because I had previously had many discussions with Dr. Yanai.

Dr. Yanai: I appreciate all the help we received from each business operator. Teijin Home Healthcare Ltd. and other business operators



assisted by bringing as many oxygen concentrators/cylinders as possible to the hospital, and many empty cylinders were taken back and refilled regardless of whose cylinder it was. It was reassuring to know that in an emergency, medical equipment manufacturers and their agents can cooperate beyond company barriers to do everything possible for patients.

Mr. Kishida: Twenty years ago, the Association for Promotion of Health Care Service initiated a certification system for LTOT. Today, approximately 220 companies in Japan are certified under the system. One criterion for certification is being able to offer 24-hour support, or if this is not possible, guaranteeing a substitute company that can offer 24-hour support. In this case, I think this provision functioned effectively.

Mr. Matsumoto: Recently, many hospitals have asked for our regional data on the number of LTOT patients. Since *D-MAP*, our disaster response and support map system, can output a distribution map of patients, we have explained to hospitals that any data that does not contain personal information can be provided. The keyword that I thought came out of this earthquake disaster in terms of future measures was “collaboration” including that between business operators, business operators and hospitals, business operators and patients’ associations, and patients and patients’ associations. Use of *D-MAP* by hospitals is also part of this collaboration.

Dr. Yanai: In the event of a large-scale disaster, it will be important to collaborate beyond company and organizational barriers.



Promoting Respiratory Rehabilitation: Training Patients in Breathing Methods Useful in Emergencies

Mr. Kishida: I understand that respiratory rehabilitation* proved very useful in this earthquake. Please tell us about it.

Mr. Takahashi: Tohoku Hakuchokai asked its members about respiratory rehabilitation through questionnaires and during group discussions at the general meeting. Many patients said that using the breathing methods that they had learnt in Hakuchokai rehabilitation sessions allowed them to wait calmly for family members to return or for other help. I was very glad to hear that.

Mr. Kishida: Dr. Yanai, please tell us again about the significance of respiratory rehabilitation?

Dr. Yanai: For chronic obstructive pulmonary disease patients in particular, respiratory rehabilitation carries the same importance as

CSR in Disasters

Feature 1

drug therapy. If patients learn how to breathe properly, they can substantially prevent the drop in blood oxygen saturation levels that occurs when walking. This time, there were patients who were able to survive the crisis without oxygen cylinders through use of respiratory rehabilitation; it is that important. That is why it is such a great thing for the patients' association to offer respiratory rehabilitation classes. Patients also receive encouragement from each other while talking at the classes.

Mr. Ohtomo: Recently, patient awareness about the benefits of respiratory rehabilitation has been increasing. For instance, in Yamagata, there have been requests for rehabilitation lessons to be held. Through comprehensive public relations activities, Tohoku Hakuchokai would like to increase the number of participants at these sessions.

Mr. Takahashi: Tohoku Hakuchokai will start accepting applications for respiratory rehabilitation classes in May. We are now preparing a leaflet inviting patients to join the classes. It would be nice if Teijin Home Healthcare Ltd. staff could hand out these leaflets when they visit patients.

Mr. Matsumoto: Yes, we would be glad to cooperate.

Mr. Kishida: This autumn, the general meeting of the Federation of Japanese Respiratory Disease Patients' Associations will be held. As there is increasing interest about the benefits of respiratory rehabilitation among patients in the areas not affected by the disaster, I hope that comments from Tohoku Hakuchokai at the meeting will lead to its more widespread use.

* Respiratory rehabilitation: As a supplement to medical treatment, a combination of physical therapy (breathing training, exercise therapy) and diet therapy to improve breathing difficulties.

Collaboration, the Keyword in Creating an Environment of Security and Trust

Mr. Kishida: Today's dialogue was the first opportunity for discussions between a doctor, a patients' association and Teijin Home Healthcare Ltd. What did everyone think about the dialogue?

Dr. Yanai: It was good to hear how patients in Sendai responded to the earthquake disaster. I had heard about the patients in Ishinomaki and now I know the details of the situation in Sendai. The dialogue



reaffirmed the importance of collaboration between medical staff, patients and home healthcare dealers and of raising the issue with the government.

Mr. Takahashi: In this major earthquake disaster, many local clinics ceased functioning. That's why a huge number of patients went to large hospitals for help.

From now on, I think it is necessary that local clinics introduce in-house power generation and for there to be closer coordination between clinics.

Mr. Ohtomo: In this earthquake disaster, we saw the sincere efforts of Teijin Home Healthcare Ltd. with our own eyes. This strengthened the resolve of the patients' association to also take action and we were able to carry out measures to face the problem. For me, today's dialogue reinforced the importance of collaboration between all groups.

Mr. Matsumoto: Teijin Home Healthcare Ltd.'s underlying theme is "security and trust." On March 11, to be honest, we didn't know how to take the initial step forward. However, I think this dialogue has told us that the trial-and-error process used to support patients was not mistaken. Based on the lessons that we have learnt this time, we hope to strengthen collaboration between all groups and achieve an enhanced level of security and trust.

Mr. Miyazaki: This dialogue was a valuable opportunity for business operators like us to think about what responsibilities we must fulfill to prevent/reduce the effect of disasters. In the future, we hope to apply what we have learnt from Dr. Yanai and Tohoku Hakuchokai.

Mr. Kishida: As a business operator, my resolve to collaborate with people in the industry and work for better home healthcare was renewed. Thank you very much for sparing the time to join this dialogue and for the valuable comments.



Mr. Toshiro Miyazaki

Manager
Fukushima Sales Office
Teijin Home Healthcare Ltd.

In Fukushima, which experienced both the earthquake and nuclear power plant accident, the struggle from a psychological point of view is still continuing today. While considering the health of employees, Mr. Miyazaki guided staff to ensure proper patient follow-up.

Dialogue with Employees Engaged in Home Healthcare

In addition to this dialogue with a doctor and a patients' association, a dialogue was held with employees of the home healthcare business regarding the response to the Great East Japan Earthquake. For details, please visit our website.

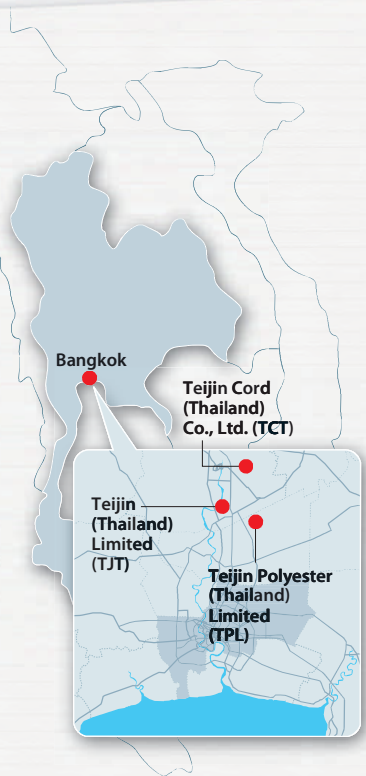


Teijin Group's Response to the Thailand Floods: Recovery and Restarting Production after Suspended Operations due to Flooding

In Thailand, due to the continuous and torrential rainfall that started in July 2011, rivers overflowed and approximately one third of the land was inundated. Three (TPL, TJT and TCT) of the four Teijin Group production bases in Thailand were inundated and production had to be temporarily suspended. However, there were no injuries to Teijin employees and recovery work has progressed to enable gradual resumption of production activities.

Outline of the Three Teijin Group Production Bases in Thailand and the Extent of Damage

Company name	Abbreviation	No. of employees (at time of disaster)	Business details	Extent of damage		
				Operations suspended	Injuries	Partial restart of production after flooding
Teijin Polyester (Thailand) Limited	TPL	Approx. 900	Manufacture of polyester chips, polyester filament/staple fibers and industrial fibers	October 16, 2011	None	February 9, 2012
Teijin (Thailand) Limited	TJT	Approx. 500	Manufacture of polyester chips and polyester filament/staple fibers	October 12, 2011	None	February 29, 2012
Teijin Cord (Thailand) Co., Ltd.	TCT	Approx. 100	Manufacture of cords for the core of industrial-use transmission belts	October 8, 2011	None	May 3, 2012



Worksites and Head Office Working Together for Recovery

After we were notified of the further spread of damage on October 14, 2011, we set up a Thailand floods countermeasures task force in our head office to support the activities of the countermeasure headquarters already established onsite. The countermeasures headquarters assigned personnel responsible for each business and department. Placing priority on human life, these personnel took action in areas such as onsite directions, customer response, material supply support, procurement of machinery/materials, technical/personnel support, local employee support, infection prevention and healthcare.

Recovery work at the three companies, such as cleaning the premises and disassembly/cleaning of equipment was conducted through the joint efforts of local employees and the support team from Japan. TPL made the first shipment after the flooding on February 11, 2012, followed by TJT on February 29, 2012, and production has since been resumed step-by-step.

Maintaining Deliveries to Customers through Alternate Production

After operations were suspended at the three local sites, we immediately considered alternate production and procurement from other companies to ensure customer needs were met. Production of polyester filament and staple fibers, and industrial fibers was shifted to the Matsuyama, Tokuyama and Iwakuni Factories of Teijin Fibers Limited as well as to manufacturers in Indonesia and Taiwan, thereby minimizing the impact on deliveries to customers. TCT also maintained their deliveries to Japanese rubber manufacturers through alternate production at other companies.



Inside the inundated plant at TJT (October 21, 2011)



The inundated plant at TPL (October 24, 2011)



Trial operation of equipment at TCT (March 9, 2012)



First shipment after restart of production at TPL (February 11, 2012)

Looking Back at the Great East Japan Earthquake and Thailand Floods with Respect to Teijin's BCP/BCM

The Teijin Group implements risk management for the entire group based on its basic principles of total risk management. In this framework, the BCP and BCM are positioned as core challenges, and their implementation status, and group-wide risk management plan and progress are reported to the Board of Directors.

Teijin Home Healthcare Ltd., which features in this report, has formulated a BCP under the basic concept that business continuity is directly connected to the safety of patients, and has devised original systems such as *D-MAP*. These kinds of preparations performed on a routine basis made it possible to respond appropriately and promptly at the time of the Great East

Japan Earthquake. I am proud of the employees who fulfilled their duty at their respective workplaces.

During the Thailand flooding, countermeasures headquarters were established both in Thailand and at the Teijin head office and all-out group-wide efforts were made for recovery. We will continue to promote total risk management including BCP and BCM as an important part of CSR.



Tamotsu Koyama
General Manager of Risk Management Office Tei Limited