Future of Healthcare

Healthcare Solutions Magazine

Offprint: Hospital Management & Healthcare Policy

The significant meaning of the medical care delivery system in disaster medicine

~ Learning from the efforts of the Public Interest Incorporated Association Mobile Hospital International ~



The significant meaning of the medical care delivery system in disaster medicine

\sim Learning from the efforts of the Public Interest Incorporated Association Mobile Hospital International \sim

Japan, with its unique volcanic terrain and surrounded by trench plates, is constantly threatened by earthquakes. In addition, there is an urgent need to further improve the medical care delivery system for disaster medical care in the face of concerns about the spread of new coronavirus infections and monkeypox, which continue to mutate worldwide. Therefore, we invited Dr. Kouichi Sunada, President of the Public Interest Incorporated Association Mobile Hospital International that promotes establishing rescue networks on hospital ships, to discuss MHI's philosophy, activities, and challenges today and its future direction. Hideaki Mori, President and Representative Director of Siemens Healthcare K.K., served as host.



Kouichi Sunada, Ph.D. (Human Environmental Studies)

President of MHI, an incorporated public interest association. Completed the doctoral course in Spatial Systems, Graduate School of Human and Environmental Studies, Kyushu University. Specialized in urban planning in 1999. Former coordinator for wide-area industry-academiagovernment collaboration at the Ministry of Education, Culture, Sports, Science and Technology, former special professor at the Graduate School of Art and Design, Kyushu University, and member of the Committee to Study Multi-purpose Vessels for Disaster Management (Cabinet Office). He is also a member of the committee to study the port call of the hospital ship Mercy (Cabinet Office). Special advisor to the Diet Members Caucus for the Future of Disaster Medicine in Japan, a Maritime Nation.

(Interviewer) Hideaki Mori

President and Representative Director, Siemens Healthcare K.K./Siemens Healthcare Diagnostics K.K.

After graduating from the Department of Mechanical Engineering, Faculty of Science and Engineering, Waseda University, he joined Siemens-Asahi Medical Technologies Ltd. (currently Siemens Healthcare K.K.), where he began his career as an MRI development engineer. After that, he was appointed as Business Manager of Molecular Imaging, Angiography & X-ray Departments, the head of Sales Division, as well as the head of Imaging & Therapy Business Division. In 2015, he was appointed President and Representative Director of the company, a position he holds today. Mori: Thank you very much for visiting us today, despite your busy schedule. Since our foundation, we have been striving to create social value in Japan under our corporate mission, "We pioneer breakthroughs in healthcare for everyone, everywhere." We have also been sympathetic to MHI's efforts to build a disaster relief network in this earthquake-prone country. Therefore, we have been cooperating with MHI as a supporting member, albeit in a small way. So today, I would like to talk to you about MHI.

Sunada: Thank you for inviting me. Siemens' relationship with Japan appears to date back to the Edo period.

Mori: In the 1860s, the founder, Werner von Siemens, invented the electromagnetic pointer telegraph and presented it to the Edo shogunate of the time. During the Meiji period (1868-1912), when electric power was introduced to Japan, 60 Hz was used in western Japan and 50 Hz in eastern Japan because western Japan adopted General Electric's system and eastern Japan adopted Siemens' system.

Sunada: I was not aware of that. Your company has been deeply involved in the modern history of Japan up to the present. When I trace the history of your company, I think there are many things we should know more about.

Mori: It is as you say. Werner, who believed that "the value of an invention lies in its practical application," introduced the world's electric locomotives and

elevators. At the same time, the then-Japanese subsidiary of Siemens delivered Japan's first X-ray machine to Tokyo Imperial University and the Army Medical College in 1898. In the early 1900s, Siemens participated in various projects, including opening the current Enoshima Electric Railway and supplying low-frequency induction furnaces to the state-run Yawata Steel Works.

Sunada: In 1923, this led to the establishment of the first joint venture with Japan, Fuji Electric Manufacturing Co. I feel the company's backbone is how to create social value.

Mori: I believe this is the spirit of Siemens that has been passed down from our founder, Werner.



Founder of Siemens: Werner von Siemens

Werner took an extraordinary interest in corporate social policy with an eye to the future. For example, in 1872, more than ten years before the German national pension system was established, he set up a corporate pension plan and assigned a family doctor to treat employees who became suddenly ill or injured. The various medical services offered by Siemens Healthineers today have their origins in this business.

Social change is urgently needed for the 2025 Osaka Expo

Mori: Could you tell us your thoughts on a medical care delivery system that utilizes vessels?

Sunada: As you know, Japan is a maritime nation surrounded by the sea on all four sides, with many active volcanoes, and has long suffered earthquakes. It also lacks a medical system for infectious disease outbreaks. It is impossible to provide modern medical care in a hospital surrounded by the sea and without power. Medical capabilities in the affected areas could be maximized by effectively using ships that operate independently from the electric power grid. We know that it will be challenging to secure "medical facilities that can operate immediately after a disaster" in the event of an anticipated Nankai or Tonankai Trough earthquake. Therefore, we believe it is imperative to establish a medical care delivery system that utilizes ships to quickly resolve the issues of providing "well-equipped medical facilities" and "mass transportation." We would also like to promote the understanding that these vessels require many professionals other than medical personnel and that they are also teaching grounds for simultaneously systematically training volunteers with specialized skills.

Mori: Thank you very much. June 2021 marks one year since the House of Councilors passed the "Act on Promotion of Improvement of Medical Care Delivery System Using Vessels in Times of Disaster." at a plenary session, and a symposium was recently held to commemorate the first anniversary of the passage of the bill.

Sunada: Thank you for your attendance. In the United States, "hospital ships" rescue hurricane victims. In the Great East Japan Earthquake of 2011, many Japanese were saved by the U.S. military's "Operation Tomodachi," which took advantage of the geographical location of Japan surrounded by the sea. Based on this experience, MHI was established in the same year with the goal of building a hospital ship in Japan for the future of disaster medical care in Japan, a maritime country. In Japan, a disaster-prone country, rescue by medical ship using sea routes is a revolution in the social system to have a sound medical care delivery system in place. However, it took ten years and another year to pass a bill to promote it.

Mori: You have really devoted yourself to this project for a long time. As you have just explained, I think the great thing about MHI is that it is not only building hospital ships but is also trying to build a system that includes volunteers who can respond to disasters. Infrastructure may not function just by building it, but how will it be used? Or around it, because without a system that serves the entire healthcare system, it will eventually only be able to function in part.

Will the system in the promotion law be built to include volunteers?

Sunada: Yes, it is built-in. Since the law is a promotion law that commands the government to "do what and how next," it is now necessary to create the system's engine that will run the system; this means that the engine also needs to be maintained and related to the day-to-day matters of when, where, and how it will be operated. We are now entering the level of implementing the law, which includes how to set up partners, where to obtain financial resources, and who will be in charge. The law states that the date of enforcement will be "a date specified by a Cabinet Order within a period not exceeding three years from the date of promulgation," so even if nothing is done when this date arrives, the law will have no choice but to go into effect. If neither the private sector nor politics pretend to be ignorant at that time, it would not be a system with a soul. We are speaking out to build a

hospital ship to emphasize the need for a system and contribute to that social change. Now, a year after the bill was passed, the primary questions concerning what is needed to implement the system for demonstration purposes. Is the existing system sufficient to handle the main body of operation and management? Since volunteers are not part of the system at the start, when and where should they be included and managed? How can we incorporate volunteers into the system?

Mori: In promoting social change, we have almost done the same as I mentioned initially, except that we specialize in healthcare. To this end, we have established several pillars. We have set a goal of implementing strategies to realize these pillars by 2025. We have decided on what we will do this year, one by one, and are now moving forward with learning each goal and checking our progress every month. One of the pillars is "Access to care" - how to deliver care to those who have difficulty accessing medical care, precisely what you are trying to achieve in Japan through the Hospital Ship Project.

Sunada: That is precisely what we are aiming for.

Hospital ships with full amenities to help those "unable to receive care" during disasters

We are currently asking the Cabinet Secretariat to comply with the recently enacted law that establishes a headquarters for the promotion of the development of a medical care delivery system using ships in the event of a disaster within a period not to exceed three years, as stipulated in Articles 7-15 of the law. One of the benchmarks is the enactment of the implementation law for the timing of Osaka Expo 2025.

Siemens Healthineers

Our Purpose

We pioneer breakthroughs in healthcare. For everyone. Everywhere.

Serving even more Customers and Patients





Mori: When we think about disaster medicine in Japan, there are people who "cannot be cared for."

Sunada: You are right. Some people are not receiving medical care. These are the people who say very little in times of disaster. In other words, people's voices are not heard even if they speak out. As you can see in the actual evacuation centers, They are laid directly on the floor of the gymnasium. They sleep in small groups.

Mori: So there are actually dead bodies lying on the floor, too, aren't there?

Sunada: That's right. On 3.11 earthquake, many people came to the evacuation center to look for the bodies of those who had been brought in, saying, "My little boy is missing," or "Is my mother there?" Overseas, for example, the Rohingya refugee camps in Myanmar are also in poor condition. Both evacuation centers used during the Great East Japan Earthquake and the Rohingya refugee camps were of low quality internationally. The government probably takes this kind of environment for granted. People don't speak up and don't complain, which is why they are forced to sleep in such places for days at a time. There is nowhere else to go, and there are no cafeterias. So we thought, why not house the evacuees on a ship equipped with comfortable amenities that prioritize their health? The ship would provide hot meals, hot showers, and a safe place to sleep. Using vessels with such amenities and resident medical personnel to provide health care, we can transport large numbers of evacuees from poor shelters and help prevent earthquake-related

deaths. However, few people in the Japanese Association for Acute Medicine are considering this as a hospital ship.

Look before you leap. They need to be prepared in advance.

Mori: There is not much time before the Osaka Expo in 2025.

Sunada: There is a threat of a Nankai Trough earthquake in the Osaka area. Even if we say we are prepared, we must be ready. The bureaucrats are reluctant to do that. In other words, they don't have the means to do it. So now we are in the process of checking to see if there are no moves. If we don't manage to move forward this way, and if the rest of the political situation does not allow for a resolute response, we may find ourselves with nothing at the time of the Osaka Expo. The Nankai Trough will be the biggest problem. In short, I believe it is important to worry about things that have not yet happened, or in other words, to be prepared for what may happen before it happens.

Mori: It's too late once something happens.

Sunada: I think the same thing can be said for diseases. In the terminal stage, it's too late.

Mori: You are right. The biggest problem with Japanese healthcare is that not much money is spent on prevention. Japan's medical insurance system does not pay unless you get sick. Preventive dentistry is self-paid, so we finally see a dentist when we get a cavity. This is why so many people in Japan have cavities, and why so few have teeth left when they get old. The big issue for Japan is how to have "a walking stick" ready before people stumble. In terms of the meaning of "look before you leap," I think the reason why volunteers have become so popular in Europe is because Europe as a whole is a country that has lost everything due to war, so in the end, they could not rely on the government. Without volunteers, there was nothing that could be done. I think the difference between Europe and Japan is that Japan hasn't institutionalized the infrastructure for volunteers as a country.

German Federal Agency for Disaster Technical Assistance (THW) specializing in volunteerism

Sunada: The key point of this Diet member's bill is that the basic plan clearly states that independent administrative agencies and private citizens can also operate vessels if they can establish a medical care delivery system. First of all, the government urgently needs to establish a system to protect the lives and

What is a medical care delivery system that utilizes ships?



- (1) Surrounded by the sea on all four sides, it is impossible to provide modern medical care in a hospital where electricity has been cut off. An effective use of power-independent ships is the best way to maximize medical capabilities in the disaster area.
- (2) It is challenging to secure "medical facilities that can operat immediately after a disaster" in the event of a possible Nankai Trough or Tonankai Trough earthquake.
- (3) To urgently solve the two problems of providing "wellequipped medical facilities" and "mass transportation," the establishment of a medical care delivery system that utilizes vessels is imperative.
- (4) Vessels require numerous professionals other than medical personnel. Promoting a better understanding that a hospital ship is a teaching facility that simultaneously provides organized training of volunteers with expertise.

Presentation material for Symposium Program II commemorating the first anniversary of the enactment of the "Law for the Promotion of Medical Service Utilizing Vessels in Times of Disaster" by lawmakers.

livelihood of the people by securing a command post function that can centrally operate the national, prefectural, and municipal governments, as well as manage crisis management organizations such as fire departments, police departments, and Self-Defense Forces in any situation. To this end, we formed the Bipartisan Diet Members Caucus for the Promotion of Medical Vessel Utilization in Disasters (hereafter, the Bipartisan Diet Members Caucus). We passed the "Disaster Medical Vessel Utilization Bill" to establish a lifesaving and rescue system that utilizes medical vessels during a disaster. The proposal was submitted to Chief Cabinet Secretary Hirokazu Matsuno by Fukushiro Nukaga, a member of the House of Representatives and chairman of the Bipartisan Diet Members Caucus. He has stated that it is essential to establish a system for relevant organizations to share disaster information, such as weather phenomena and earthquake warnings, at all times. At the same time, it is also essential to establish a human resource development and technical support system so that disaster response specialists and volunteer workers can perform functional activities based on an appropriate division of roles. Until now, it has only been said that the Self-Defense Forces should own the vessels for disaster response. However, I believe the role of the Self-Defense Forces is to go to the battlefield and other specialists are needed. Disaster security requires the addition of medical care to research specialists who integrate diverse areas such as meteorology, climate change, volcanoes, earthquakes, land transportation, aviation, ports, maritime affairs, urban planning, architecture, rivers, and Exclusive Economic Zone handling. A onepackage command function can be fulfilled onboard a ship when the work is aligned. Combining these elements onboard the vessel will enable the ship to fulfill a one-package command function.

Mori: You visited the THW, which organizes volunteers in Germany.

Sunada: Yes, THW is an organization that has genuinely professionalized volunteerism. It was founded in 1950 after the war's end and trained 81,000 volunteers under its umbrella. Recently, they have responded to a wide range of requests from EU headquarters and the United Nations.

Mori: They are famous as a competent organization that can seamlessly execute everything from research on specialized disaster equipment to human resource development. Sunada: That's right. They are sent all over the world. Thus, when German THWs are sent representing the UN or the EU, the German government receives funding. Therefore, it is an export of the system.

THW has an outstanding reputation in Germany, with people from all walks of civil society and all professions teaming up to form units. So, for example, there is a unit just for women who can bring their children to training. There is also a unit just for veterinarians who save the animals since there are large animals on the farm. mechanism to utilize so-called professionals and volunteers functionally and flexibly because we need our country to have a system that can withstand a declining birthrate. We have people who voluntarily serve when a major disaster comes. Still, they are not proactive because they serve after the disaster occurs. Their work is also limited to cleaning up mud and related activities. Crime abounds. Therefore, I think it would be advantageous to have a registration system so that professionals can be identified by function and provide a system to

Volunteers at THW

- From all parts of the civil society and all kind of occupations.
- German citizens, as well as foreigners.
- Women (13 %) and men.
- 99 % volunteers in THW.
- THW is a Governmental Organisation (GO).

www.thw.de

 THW has a high reputation within the German population.



Presentation material for Symposium Program II commemorating the first anniversary of the enactment of the "Law for the Promotion of Medical Service Utilizing Vessels in Times of Disaster" by lawmakers.

The reason we have prioritized the creation of laws regarding hospital ships is that the government, which tries to move the system, cannot move without laws. When a major disaster strikes, the government alone cannot respond, so we are not building a hospital ship alone, but a system to move society as a whole. If the people who provide support do not just go voluntarily but, as you said, can functionally participate in the system. Thus, both the people who volunteer and the companies that send them will feel secure. And if there is permanence, it can continue for a long time.

Mori: In Japan, there were grassroots movements, but there was no systematization of volunteer activities by the government.

Sunada: The fire brigade is the only organization that had done this. Many people died in the 3.11 earthquake. When I see that devastation, I cannot feel the sense of science. In the last sentence of our request to Chief Cabinet Secretary Hirokazu Matsuno, we included the need to organize a educate them. Also, creating a world map showing where the people are from and who governs them would be helpful. For example, Some might say "I am good at handling phone lines,", "I am good at using the Internet," or a maternity nurse might say, "I can help with births in emergencies. There will be many discoveries. The urgent task for Japan, a disaster-prone country, is to transform volunteers' expertise into digital information.

Mori: It would be the creation of a public-private partnership organization similar to THW in Germany.

Sunada: That's right, although THW is a federal agency, 98% of its members are volunteers. The THW comprises 668 local organizations providing electricity and water and building temporary roads. They establish and maintain evacuation centers and set up and operate communication systems and logistics centers. We must install such a system and realize a "hospital ship" that can serve as an offshore base in the event of a disaster. Surrounded by the sea, we cannot evacuate on foot as in Ukraine. Even if one or two cars carrying a single bed were to rush to a hospital where the electricity has been cut off, it would not be enough.

Nevertheless, with hospital ships, for example, we can set up a logistics center that can carry various goods to the other side of the Seto Inland Sea around Hiroshima, Okayama, or Hyogo prefectures, even if a Nankai Trough earthquake strikes. Suppose a law is passed and orders are given. In that case, self-defense officers could come out and share the center as a heliport by order of the competent authorities. If a causeway is built with a floating pier, cargo could be delivered between ships. For daily training, there would be a ship with a platform on which helicopters could drop in and land as part of civilian activities.

We believe it would be most desirable to use such vessels for daily training; they do not need to be hospital vessels. For example, suppose a domestic tanker carrying fuel would accompany the ship. In that case, it could take the tanker to the disaster area where there is no gasoline or kerosene, and since it is a ferry, trucks could also be placed inside. We would like to see such a tanker running in the disaster area. Bulldozers can also be used to clear away the debris so that such work would be possible. So, as President Mori just said, this is not about a single ship but building a whole system. We do not need to construct a new ship; instead, we can retrofit vessels used for other purposes, a carbonsaving method. We believe that this could be done in various ways through international collaboration. Another approach would be to have hospital ships defined as vessels that sail on the high seas, with everyone participating in the construction of their own share of the ship. To have a proper understanding, the government will take necessary measures to promote the development of a medical care delivery system that utilizes ships in times of disaster, according to the Basic Policy.

Mori: It's the development of the system. So, the development of infrastructure is only one part of it.

Sunada: Exactly. That's right.

Learning from the American hospital ship "Mercy"

Sunada: As a specific example of a hospital ship, we were invited to visit the United States Naval Ship Mercy in 2018. With an inpatient capacity comparable to a large medical facility on land, the Mercy has 12 well-equipped, state-of-the-art operating rooms, a 1,000-bed inpatient hospital facility, radiation services, a medical laboratory, pharmacy, optometry lab, and CT scanner. In addition, plant facilities produce purified water at 70,000 tons per day and generate oxygen, making it possible to assist the affected areas while ensuring their self-sufficiency and not burdening them. It also has a helicopter deck that can land large military helicopters and a side port to bring in patients from the sea. In addition, Mercy makes regular port calls in disaster-prone India and Asia-Pacific countries to deepen exchanges and strengthen cooperation for disaster relief.

Some criticize that hospital ships cost too much, but we believe this is a matter of how they are done. So, for example, in Mercy, the Navy has prepared a ship. The manufacturer goes in and equips it with equipment. It functions like a kind of trade show, with various people observing the equipment at the anchorage. We are considering that Japanese hospital ships should also be equipped with robotic surgical equipment because of the rocking on board. The manufacturers will install their equipment for this as well. And the fact that many professionals are on board other than doctors means that the hospital ship can also be a school or educational institution for organizing volunteers.

What I think about the actual procurement of relief supplies, there are no financial instruments to handle these in Japan's institutional design. However, the procurement of disaster relief supplies can be a derivative. For example, in the U.S., the system is based on derivatives, with contractors automatically providing all supplies at prenegotiated prices when emergencies arise.

Mori: So you have no choice but to do everything under a voluntary contract because the cost would end up being several times higher after a disaster occurs, and there is an urgency to do so.

Sunada: That's right. In the U.S., citizens are given a card that displays a diagram of the emergency system when inserted into a computer. The system's structure is straightforward, consisting of an information center, its operations, logistics, and finance. For example, in an emergency, money is needed. Society is in chaos with no electricity; thus, ATMs are not functioning. When large quantities of goods are needed under these circumstances, the banks are the ones who arrange the derivatives; they are responsible for getting companies moving to deliver the goods. The United States Emergency Management Agency (FEMA)* applies this system in its entirety.

Mori: That is very American.

Sunada: Yes, until the national government establishes a centralized disaster management system like FEMA, our primary focus will continue to prepare for the next disaster. First of all, I would like to go to Germany sometime this fall to exchange opinions with people from the EU. After returning to Japan, we would be happy if we could hold a debriefing session and an international symposium in both EU countries and Japan. If all European companies could participate in the symposium together, it would create unprecedented potential and be an engaging event. Therefore, we have set our sights on this next year and are considering a roadmap up to 2025.

Mori: As a private sector organization such as the European Business Council, we would like to assist you in any way we can. Thank you very much for sharing your wide-ranging views with us today.

*A government agency of the United States that responds to major disasters. It is part of the U.S. Department of Homeland Security, under the Under Secretary for Emergency Preparedness and Readiness, and responds to natural and man-made disasters.

(Interviewed June 14, 2022)



The Act on the Promotion of Medical Service Utilizing Vessels in **Times of Disaster** Symposium Commemorating the First Anniversary of the Passage of the Legislation

On June 2, 2022, the Bipartisan Diet Members Caucus for the Promotion of Vessel-Based Medical Services in Times of Disaster (from now on referred to as "Bipartisan Diet Members Caucus") and MHI co-hosted a symposium commemorating the first anniversary of the enactment of the "Act on the Promotion of the Development of Medical Care Provision Systems Using Vessels in Times of Disaster (Act No. 79 of 2021)."

Following the opening address and activity report by Mr. Jun Tsushima, Secretary General of the Bipartisan Diet Members Caucus, a member of the House of Representatives, Mr. Fukushiro Nukaga, Chairman of the Bipartisan Diet Members Caucus, gave a keynote speech titled "The Passage of the Promotion Law and the Future of a Disaster-Ravaged Country" in Program I, in which he explained the "Proposal for the Development of a Medical Care Delivery System Utilizing Vessels in Times of Disaster," submitted to Chief Cabinet Secretary Hirokazu Matsuno. Mr. Nukaga stated [1] that in preparation for the unpredictable occurrence of major disasters, the government should think about accelerating the development of a medical care delivery system that utilizes ships, establish a Headquarters for the Promotion of Vessel-Based Medical Care in the Cabinet, and quickly establish a complete disaster medical care system. [2] In the development and promotion plan, the government should coordinate with the national, prefectural, and municipal governments to establish a central command post for crisis management systems . [3] Furthermore, the government should establish a system for relevant organizations to share disaster information such as weather phenomena and earthquake warnings at the time of a disaster, and at the same time, develop human resources, technical support, and technical assistance to enable disaster response specialists and volunteers to functionally carry out their activities based on an appropriate division of roles.: "Medical care on vessels in times of disaster, in other words, emergency response, could not be achieved without daily training. This applies to all organizations, including the fire department, police, coast guard, and Self-Defense Forces. It is necessary to cooperate with medical institutions to protect the lives and health of the people of Japan," he said.

In Program II, Mr. Kensuke Onishi, President of Peace Winds Japan (a Japan-based NGO that supports people affected by humanitarian and livelihood crises caused by natural disasters, conflicts, poverty, and other man-made factors in Japan and abroad), reported on his volunteer activities in Ukraine. Mr. Tohru Aruga, President of Japan Organization of Occupational Health and Safety, and Dr. Yoshihiro Yamaguchi, Professor of Kyorin University School of Medicine, moderated the discussion. A hospital ship is the best way to achieve both (1) "moving" and "transporting" functions and (2) getting a well-equipped medical institution up and running immediately after the disaster. It was discussed that hospital ships such as Mercy, currently in operation, play a role in mobilizing and enhancing the abilities of volunteers who operate the ship, receive and treat patients, and send patients to the back-up facilities of the ship. Also discussed was the importance of providing volunteers with equipment and training to use it on a regular basis, not only in times of disaster, but also to enhance their expertise. The discussion was lively. In the following Program III, as a summary of the symposium, Mr. Shinichi Yokoyama, a member of the House of Councilors and the first vice president of the Bipartisan Diet

Members Caucus, and Mr. Satoshi Umemura, a member of the House of Councilors and the same vice president, discussed the proposal to establish the headquarters and the future goals. Although the image of a hospital ship probably varies from person to person, they also confirmed the importance of organizing volunteers for the hospital ship, as they will be needed to provide specialized expertise as the technology improves.

Finally, Mr. Seiji Osaka, a member of the House of Representatives and vice president of the Bipartisan Diet Members Caucus, reviewed the symposium. Mr. Osaka commented, "Considering the issue of hospital ships leads to considering the structure of society as a whole. For example, I feel that this is an issue that holds the root of how to think about the structure of society as a whole, such as the issue of human resources, volunteers, and supplies." He also mentioned the word "beforehand" as a keyword for the conference. In his closing remarks, he said, "The issue of hospital ships is a key initiative in considering how to create a society that is prepared in advance. I believe that we have again confirmed today that hospital ships are not only medical institutions operating on the high seas but are an important part of building a well-prepared society."



In Japan, which is surrounded by the sea, the provision of medical care by vessel effectively ensures medical care in times of disaster or when infectious diseases are spread or are feared to occur (from now on, referred to as "times of disaster/). Therefore, the development of a system to provide medical care by vessel in times of disaster, etc., should be promoted.

Basic Philosophy (Article 2)

The promotion of the development of the Medical Care Provision System Utilizing Vessels in Times of Disaster, etc. shall be carried out to supplement the functions of medical facilities in such areas and contribute to the protection of the lives and bodies of citizens from disasters or infectious diseases by providing necessary medical care in area where disasters have occurred, or infectious diseases have occurred or are spread or are likely to occur, in a suitable and timely manner.

Basic Policy (Article 4)

- Ensure an appropriate division of roles and mutual coordination and cooperation between medical care provided by ships and medical care provided at land-based medical facilities in times of disaster.
 Ownership of vessels to be used mainly for medical care in times of disaster (including ownership by independent administrative agencies or entities other than the national government) to enable the accurate and prompt provision of medical care needed in areas where disasters have occurred.
- (3) Securing medical personnel from the public and private sectors, vessel's personnel, and other personnel necessary for providing medical care by vessel in times of
- (4) Develop human resources by conducting education and training to provide medical care using vessels in times of disaster.
- (5) Securing medical supplies such as medicines, medical equipment, and other goods necessary for providing medical care by vessel in times of disaster.
- (6) Effective use of vessels in (2) above for traveling medical services on remote and international emergency relief activities, other than in times of disaster (7) Utilization of private sector funds, management, and technical capabilities.
- (8) Others.

The Government shall formulate a necessary development and promotion plan for measures that the government should take concerning the development of the Medical Care Delivery System Utilizing Vessels in Times of Disaster. The Prime Minister shall seek a Cabinet decision on the draft of the development and promotion plan. When the Government formulates the development and promotion plan, it shall report it to the Diet without delay and make it public through the Internet or other appropriate means.

Headquarters (Articles 7-15) Establishment of the Headquarters for the Promotion of Medical Services by Vessel, consisting of all Ministers of State and its secretariat in the Cabinet (headed by the Prime Minister) for comprehensively and intensively promoting the development of the Medical Care Delivery System Utilizing Vessels in Times of Disaster.

Date specified by a Cabinet Order within a period not exceeding three years from the day of promulgation.

Consideration (Supplementary Provisions, Paragraph 2) A headquarter shall be reviewed approximately five years after the Act's enforcement, and necessary measures shall be taken based on the results.

Adapted from the 49th Future Research Conference of the Japan Health Foundation "Initiatives of Mobile Hospital International"

The national government must promote the development of the Medical Care Delivery System Utilizing Vessels in Times of Disaster by the Basic

lecessary measures (Article 5)

Based on the Basic Policy, the Government of Japan shall take necessary measures to promote the development of the Medical Care Delivery System Utilizing Vessels in Times of Disaster. Any necessary legislative measures shall be taken within neaware the anforcement

ne year after the enforcement

Principles.

of this Act.

Siemens Healthcare K.K. Siemens Healthcare Diagnostics K.K.

Gate City Osaki West Tower 1-11-1 Ohsaki, Shinagawa-ku, Tokyo, Japan

www.siemens-healthineers.com/jp