

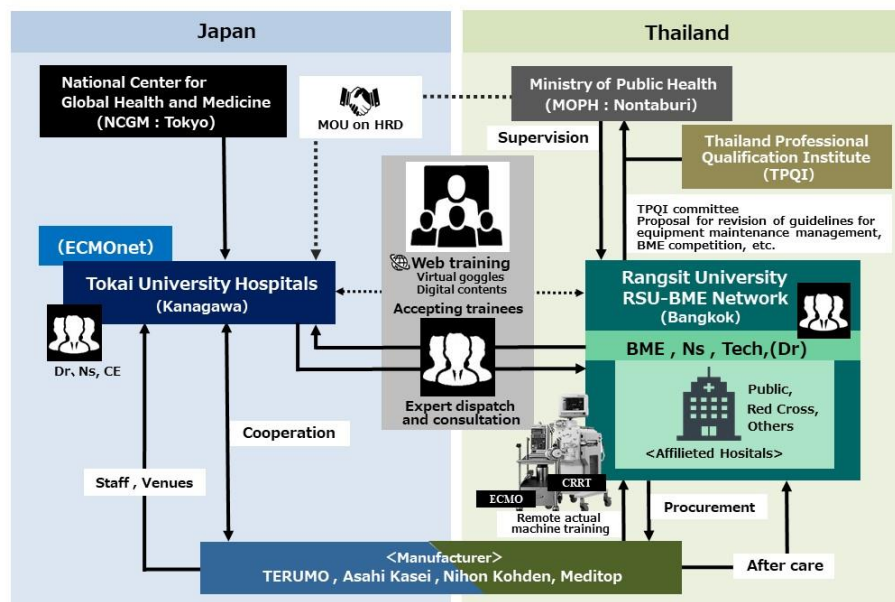
【別添4】事業概要のまとめ (英語版)

Outline of project (Appendix4)

As of May 20, 2021

Team medical service in critical care joined by Thai biomedical engineers

- Status of the target area and background : With the sophistication and complexity of medical care technology in Thailand, a biomedical engineer (BME) system similar to a clinical engineer (CE) was started from the standpoint of patient safety, but their role fell mainly on relay service on out-of-order machines with the outside of the hospital. It's all about management. In Japan, law revision is scheduled for a further task shift in medical care. On the other hand, in Thailand, there is a chronic shortage of medical personnel, and the possibility of playing an active role in the medical field of new profession is being discussed. Under these circumstances, we received a request to share the experience of Japanese-style CE.
- Outline of project, addressing Japanese medical system and strength of the applicant organization: We, who has cooperated in the clinical training of RSU-BME students for the past three years, gives a WEB lecture to the equipment management staff (BME, NS, technicians) working in the network affiliated hospitals (University, public, red-cross hospitals, etc.) of the RSU BME Department. We will conduct remote actual machine training that was well received in 2020. The content will focus on efficient device management and patient safety, and will focus on medical devices centered on ECMO, CRRT under respirators for the treatment of critically ill patients. Furthermore, with the cooperation of the equipment manufacturers, the site of intensive care team medical care will be reproduced using the equipment and VR transported to the site. In addition, we will ask each facility to present past incident cases and hold discussions based on the experience of our hospital.
- Expected outcomes and ripple effects of the project : They will be aware that by involving BME in medical care site, they can build a more efficient work system contributing to patient safety, and also to the qualification of BME in TPQI as well as in each facility. By introducing the high reliability and operability of Japanese equipment, we aim for procurement of Japanese products by two or more facilities. At the end of the training, BME will join team medical care at two or more facilities, and BME will be in charge of on-site equipment management in the medical care of critically ill patients, which will contribute to improving result of care.



<Training Schedule (Planned)>

- (A) July Pre-meeting (Tokai, RSU, Companies) for the project preparation
 - (B) Sept Pre-meeting and communication check (Tokai, RSU, Terumo)
 - (C) Oct, Web training (Group alpha, 15) : Equipment safety use, team medical care. Monitoring in ICU (Nihon Kohden), VR-ECMO (Tokai, TERUMO pranex) Setting up and Trouble shooting.
 - (D) Nov Web training (Group beta, 15) ditto
 - (E) Dec Japan site training (20 out of alpha & beta, 2 facilitators) : Observation of University Hospital team environment of CEs in ICU, OR, Dr. Heli, etc. Team safety management. Hands-on of Monitoring system (Nihon Kohden Service Centre), TIPS of pumps and ECMO (TERUMO), Ventilation controlled patient with CRRT (Tokai, Asahi Kasei) ポンプ類・ECMO管理のTIPS. Discussion on incidents (Japan and Thai examples)
 - (F) Jan Discussion and Observation (Jpn CE president, Tokai CE) (RSU, TPQI, Embassy, University hosp. etc.)
- Participant trainees: (plan) BME 20, Ns. 5, Tech 5, Observers(Dr. MOPH)