1. Project title

Technical support for department of radiology and clinical laboratory in Laos

2. Country name

People's Democratic Republic of Laos

3. Background

Aim for Setathirato Hospital
1 Provision of initial treatment for the majority of secondary patients
2 Providing advanced medical care as a center for measures against internal medicine diseases such as NCD which will rapidly increase in the future and infectious diseases
3 Environment improvement as a clinical medicine education field which is essential for human resource development to provide the above medical care
Even though the direction to go to the facility is clarified, the medical condition as a top referral hospital is still falling.
As a clinical medicine education site listed in the 3 items, it is a situation that does not have sufficient expertise.
If this project is not developed continuously, it will not be possible to fully demonstrate the role of engineers who handle it and the educational institutions of many trainees and apprentices.
Under these circumstances, by developing this project continuously, basic education as well as advanced technology tailored to the field can be fully utilized, and it is hoped that the role that Setachirato Hospital should be played can be adequately addressed.
In addition, many medical devices are expected to be introduced in facilities that play a central role in the group hospital, which can sufficiently contribute to the referral system in expanding medical standards in mountainous areas and the like.
By actively conducting training using medical devices in Japan, trust in Japanese medical devices in Laos can be obtained. By operating a large number of Japanese medical devices locally, it can be expected that the Japanese medical device industry will expand to the expansion of support business

4. Objective

While it is expected that equipment will be introduced with grant aid, quality control of medical devices, as well as medical technology and systems, can not be fully implemented unless they are built in stages prior to introduction.Medical technicians in Laos are in a situation where they have a 3-year education system in both the radiation and inspection departments, but do not have sufficient technical knowledge, so there is technology that will not handle this project continuously Can not fully demonstrate their role as an educational institution for people and many trainees and apprentices.
By creating an educational text that assumes guidelines for basic education in Laos, and incorporating an acceptance training course in line with the text, it is possible for technicians at Setagatilat Hospital not only to use the text at their own facility, but also for surrounding facilities The purpose is to provide technical support to the trainees and to be fully utilized as an educational institution for trainees and trainees in

5. Program outline

【Radiology】
As the X-ray imaging apparatus shifts to digital systems in the future, we will provide education that covers not only maintenance and management of the apparatus but also the basics of imaging technology and clinical application.
In addition, by establishing a basic education program specialized in the field, we will promote it to be developed as a medical worker education and training facility.Workshops that have received strong requests from the local community will be held again this fiscal year, and not only lectures by NCGM experts on the subject of basic knowledge on medical exposure, but also accepting trainees from university teachers and specialists in surrounding facilities We will develop business with the goal of being able to give educational lectures.
【Clinical laboratory】
In order to aim at a facility that can conform to ISO15189, it is essential to understand the basics of quality control and standard operating procedure (SOP). In Laos, knowledge of quality control is scarce, and the current situation is that it does not understand its importance. To select trainees from facilities that play a central role in the group hospital, to conduct training on knowledge of quality control, importance of SOP, equipment maintenance, etc., trainees themselves at other hospitals to further understand and spread the contents. The goal is to be able to speak and educate. In addition, I would like to provide Laos with texts like textbooks that have become a guideline for equipment maintenance, quality control and other technologies, and to develop business.

6. Implementation structure

6-1. Japan side

National Center for Global health and Medicine,l Radiotherapy department, clinical examination division, International Medical Cooperation Bureau Training Section

6-2. Counterpart country side

Setathirato Hospital in Laos

7. Indicator	
7-1. Output	【Radiology】 ・Maintenance management and quality control (100%) ・Basic knowledge of radiography conditions (70%) ・Basic knowledge in digital systems (70%) ・Basic knowledge on medical exposure(80%) ・Acquisition of educational texts (70%) 【Clinical laboratory】 〈Quality control〉 ・Internal accuracy, Significance/Operation method (70%) 〈Basic knowledge〉 ・Sample collection・Storage and disposal (90%) ・Measurement principle(50%) ・Machine,Structure and mechanism(90%) 〈Acquisition of quality control manual〉 (10%) 〈Creation of educational texts〉 (10%)
7-2. Outcome	【Radiology】 ・Transmission course of this training(80%) ・Management of daily inspection(100%) ・Understanding Risk of Failure Using Daily Inspection Record Book(80%) ・Basic education on medical exposure(40%) ・Instruction using educational texts(20%) 【Clinical examination】 ・Communicative training from a host student(100%) ・Quality control Internal accuracy, Significance →More than 25% for understanding against pre-presence ・Input rate to self-made internal quality control table(35%) 〈Acquisition of quality control manual〉 →More than 20% teaching Restructure Maintenance Checklist(50%) 〈Creation of educational texts〉(30%)

7-3. Impact	【Radiology】 ・Understand the device settings at the time of the first move following the digital system transition(80%) ・Digital system quality control(60%) Educational text ・Guideline of radiation technology in Laos country(40%) ・Function improvement as an educational institution(100%) ・Radiation equipment control in a group hospita(60%) 【Clinical laboratory】 Understand the contents of the transfer course and educate other medical facilities and students(20%) Quality control manual(50%) Creation of educational texts ・Guideline for equipment maintenance and quality control technologies in Laos country(50%)

8. Main activities

8-1. Training in 2019

1)	Accepting four trainees (2 radiographers and 2 clinical lanoratory technologists) from Setthathirat Hospital Duratin of their stay: 3weeks between April and July)
2)	Accepting four trainees (2 radiographers and 2 clinical lanoratory technologists) from Setthathirat Hospital Duratin of their stay: 3weeks between August and November)
3)	Sending foure trainers (2 radiographers and 2 clinical lanoratory technologists) from NCGM to Setthathirat Hospital. Duratin of their stay: 1 week between December and January)