

Strengthening the Clinical Trial Site Network in Asia to Accelerate Harmonization of Development Systems and Regulations: Developing and Expanding the Network of Asian Hubs¹

Implementing the “Grand Design for Asian Pharmaceutical and Medical Device Regulatory Harmonization”

Task Force for Promoting Pharmaceutical and Medical Device Regulatory Harmonization in Asia,
Executive Committee on Global Health and Human Security

In July 2016, the Headquarters for Health Care Policy at the Cabinet Office announced the “Basic Policy for the Asia Health and Wellbeing Initiative” (hereinafter referred to as the “Basic Policy”). The Basic Policy was revised in July 2018 to include the promotion of harmonized pharmaceutical approval processes and safety regulations in Asian countries to make them more effective and streamlined.

Japan has since been working with other Asian countries to promote regulatory harmonization of pharmaceuticals, medical devices, and regenerative medical products (hereinafter referred to as “pharmaceuticals and medical devices”). To promote regulatory harmonization, the “Grand Design for Asian Pharmaceutical and Medical Device Regulatory Harmonization” (hereinafter, Grand Design) was approved by the Headquarters for Healthcare Policy on June 20, 2019, and an “Implementation Strategy for the Grand Design” (hereinafter, Implementation Strategy) was approved on July 14, 2020, as a set of concrete steps to further advance the Grand Design. The Implementation Strategy calls for the promotion of regulatory harmonization of pharmaceuticals and medical devices and the establishment of a network of clinical trial sites in the Asian region specific to oncology and infectious diseases.

As a result of these decisions, there has been an increase in the number of regulatory authorities in Asian countries that are looking to Japan as a reference country in the area of harmonization of pharmaceutical regulations. As for clinical trial sites, the National Cancer Center (NCC) and the National Center for Global Health and Medicine (NCGM) have established a network with medical facilities in Asian countries in the fields of oncology and infectious diseases, respectively.

On the other hand, the following issues still exist in conducting clinical trials in Asian countries:

- Higher costs to conduct international clinical trials in Asian countries compared to domestic trials
- Differences in clinical trial support capacity among countries
- Lack of clarity in parts of the regulatory and insurance systems
- Redundant ethical review process in some countries
- Complicated requirements for import and export of samples and pharmaceuticals required for clinical trials

Furthermore, the COVID-19 pandemic has had a major impact since early 2020, not only in Asia but

¹ In this document, ‘(network) hub’ refers to a node that acts as a regulator, coordinator, and access point in a clinical trial network that connects different sites, e.g., NCC Asian Partnerships Office (APO) in Bangkok.

throughout the world. For example:

- There was an emergent need to promptly introduce vaccines and therapeutic medicines amidst a worldwide shortage of such supplies.
- The lockdowns and restrictions in mobility hampered inspections of pharmaceutical and medical device manufacturing facilities and medical institutions, as well as visits to hospitals by subjects to participate in clinical trials, making it necessary to find other means in many countries.
- In Japan, gathering enough participants for clinical trials was difficult due to the rapid fluctuation in the incidence of COVID-19, the lack of a system for conducting clinical trials on infectious diseases, and the need to develop a trial design that would respond to a pandemic. (International collaboration was needed to ensure that clinical trials could be conducted promptly in Asian countries.)
- The so-called “pandemic surge” resulted in the shortage of human resources for clinical trials and public health in the field of infectious diseases

To resolve these issues and apply lessons from the COVID-19 response, the Task Force recommends the following measures aimed at accelerating the harmonization of clinical development systems and pharmaceutical regulations in the Asian region.

1. Toward the Development and Expansion of Asian Network Hubs

As Japan’s population continues to shrink, proactive expansion to overseas markets is essential not only for the sustainable development of Japan’s economy, but also for the advancement of Japanese medical and scientific innovation. In addition, with the rapid progress of digitization worldwide, it is essential to respond quickly and take advantage of medical digitization and other means in the promotion of pharmaceutical regulation harmonization and the development of a clinical trial site network.

In such an environment, and learning from our experience with COVID-19, NCC and NCGM should further promote networking with counterpart medical institutions in Asian countries, including on the development of pharmaceuticals and medical devices in Asian countries in addition to domestic efforts within Japan. It is essential to expand and strengthen NCC’s and NCGM’s Asian network hubs of to be able to collaborate locally with Asian countries.

From the same standpoint, in promoting the harmonization of pharmaceutical regulations, it is important to establish a foundation for direct dialogue and common response to regulations with pharmaceutical regulatory authorities in Asian countries. Further strengthening the activities of the Asia Training Center for Pharmaceuticals and Medical Devices Regulatory Affairs (hereinafter, the Asia Training Center) of the Pharmaceuticals and Medical Devices Agency (PMDA) can contribute to greater communication within the Asian region. Furthermore, from this perspective, by linking the PMDA’s Asian office with the Asian centers of NCC and NCGM, consistent responses from clinical trials to regulatory approval can be expected from the regulatory authorities in Asian countries.

The development and expansion of these Asian network hubs will require support in terms of both human and financial resources, which would require the commitment from the government.

The following points should be taken into consideration with regard to the respective activities.

Enhancement and Strengthening of Asian Network Hubs for Clinical Trials

(1) Clinical Development in the Field of Oncology

Clinical development in the field of oncology requires advanced medical technology. The introduction of decentralized clinical trials (DCT) worldwide has made it possible for participants in remote areas to take part in cutting-edge trials. By involving local medical teams and utilizing existing clinical trial sites, it becomes possible to conduct high-quality trials while ensuring participant safety. To achieve this, it is important to establish a DCT implementation system using digital technology and take measures to ensure trust between the local government, the investigators and medical staff conducting the clinical trials, and the attending physicians and subjects at the partner hospitals. Since Japan has been developing a domestic DCT system, it is crucial to actively promote it and identify issues to build a robust clinical trial network in Asian countries.

To increase the number of pharmaceuticals undergoing clinical trials through the network in Asian countries, it is necessary to establish an environment where Japanese biotech firms can actively participate and to ensure that biotech firms in Europe and North America recognize the benefits of conducting trials in Japan and other Asian countries. This requires assigning dedicated physicians for negotiations with companies, strengthening cooperation with clinical trial sites in neighboring countries, and securing resources for education and personnel exchanges.

Additionally, it is necessary to focus not only on collaborative clinical trials in oncology but also on developing infrastructure that can be used for trials for other non-infectious diseases in the future. It is desirable for public research funds to support individual Asian clinical trials as well as the development of infrastructure.

Furthermore, enhancing the Asian clinical trial network hub in oncology can contribute to the implementation of the Basic Plan to Promote Cancer Control Program (formulated in March 2023), such as promoting drug development through international clinical trials for rare cancers and pediatric oncology.

(2) Clinical Development in the Field of Infectious Diseases

In the field of infectious disease, it is necessary to respond promptly to each phase of an international epidemic. To do so requires that we maintain and build international networks, develop human resources, take practical measures in emergency situations, and provide support measures such as development incentives for Japanese companies, including biotech firms.

New infectious diseases can occur suddenly at any moment all over the world. Therefore, there is a need to train international coordinators who can shuttle between Japan and other countries to coordinate projects and create hubs of human resources at research sites in Asian countries.

To overcome the shortage of human resources in the field of infectious diseases, it is also necessary to train experts who can lead clinical trials in this field during normal times. When an infectious disease outbreak actually occurs, medical institutions have limited resources to conduct clinical trials because medical personnel are deployed for treatment and other activities due to the so-called “pandemic surge.” Therefore, it is necessary to increase the number of personnel who can respond both domestically and overseas while concurrently strengthening cooperation between networks at home and abroad.

The DCT experiment in the field of oncology can also be applied to infectious diseases. For example, even when actual medical care is being provided on site, it is possible to effectively implement clinical trials with patients remotely. Thus, having a DCT implementation system utilizing digital technology in infectious diseases as well as securing human resources with expertise are of the utmost value.

Development of PMDA's Asian Office

The importance of mutual collaboration among regulatory authorities and the use of regulatory compliance in other countries was reaffirmed in responding to COVID-19.

The PMDA's Asian office should aim to develop a regional cooperative infrastructure through direct dialogue with the regulatory authorities of the partner countries. In addition, such an office should serve as a communication hub in the Asian region coordinated through the activities of the Asia Training Center.

The expansion of PMDA's office overseas can educate biotech firms and other companies about the review and approval procedures in Japan and Asia. At the same time, it can also meet the need to nurture greater understanding in Asian countries about the usefulness of clinical trials.

Taking such measures will increase access to necessary pharmaceuticals and medical devices and will contribute to the promotion of universal health coverage (UHC) in Asian countries.

Collaboration Between the Network of Clinical Trial Implementation Sites and PMDA's Asian Office

The network hubs in Asia for clinical trial implementation sites and PMDA office should not be regarded as totally independent entities that play their roles regardless of the functions of other related organizations. Each should aim to work together efficiently and effectively, complementing each other under close collaboration. This should enable consistent handling from clinical development to approval and post-marketing safety measures, as well as prompt and appropriate access to the market.

In addition, it is necessary to work with international organizations, as well as with existing European and US organizations and networks, to create a common regional infrastructure within a global framework.

In developing a network hub in each Asian country, considerations should be given to funding from the Asian Development Bank, collaboration with the Economic Research Institute for ASEAN and East Asia (ERIA), and access to the Japan International Cooperation Agency (JICA) offices that are active in the region.

2. Issues for Future Consideration

Neighboring Asian countries play a vital role in the development of and access to innovative and cutting-edge pharmaceuticals and medical devices originating from Japan. The expansion of the network of clinical trial sites and the development of PMDA's Asian Office will strengthen the foundation for further development. This, in turn, can be expected to lead to the next step from clinical development to approval and safety assurance of pharmaceuticals and medical devices in Asian countries.

It has been pointed out that the recent national strategy in response to COVID-19 was inadequate. Reflecting on that, in the future, along with the implementation of the aforementioned recommendations, consideration should also be given to internationalizing projects that utilize research funds from the Japan Agency for Medical Research and Development (AMED) in order to ensure that there is consistency when dealing with the entire process from research and development through to approval and post-marketing safety measures.

* This recommendations were originally published as “Ajia-chiiki niokeru Rinsho Kaihatsu Taisei/Yakuji Kisei Chowa no Kasoku ni Mukete--Ajia-kyoten no Seibi-Kakujū.” You can download the file with the link below.
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