

## **Nuclear Medicine in the region – Asia-Oceania Regional Perspective**

**Prof. Dr. Raihan Hussain**, MBBS, DNM, MACR, PhD.

General Secretary, Society of Nuclear Medicine, Bangladesh (SNMB)

Secretary General, Asia-Oceania Federation of Nuclear Medicine and Biology (AOFNMB)

Treasurer, Asian Regional Cooperative Council for Nuclear Medicine (ARCCNM)

Member, Governing Body, World Association of Radiopharmaceutical & Molecular Therapy (WARMTH)

**Correspondence:** Professor and Chief Medical Officer, Head, Nuclear Cardiology Division, National Institute of Nuclear Medicine and Allied Sciences, BAEC, BSM Medical University Campus, Dhaka, Bangladesh. Tel: 88 02 8621697 (off), + 88 01711535101 (mob), E-mail: raihan\_h@yahoo.com

Asia is the world's largest and most populous continent with a population of 4.3 billion people. Located primarily in the eastern and northern hemispheres, Asia covers 8.7% of the Earth's total surface area and comprises 30% of its land area. With approximately 4.3 billion people, it makes up 60% of the world's current human population (1). If, technically we consider the entire region as Asia-Oceania together, it spans from Turkey to Pacific Islands with a large number of country with diversified socio-economic, cultural, linguistic, religious and ethnic backgrounds. The level of Nuclear Medicine also varies greatly from one country to another unlike other continents like Europe. There are countries with highly sophisticated level, e.g. Japan, Korea; there are countries advancing at a rapid pace, e.g. China, India; countries having a foundation and progressing fast, e.g. Thailand, Bangladesh; countries started and progressing forward, e.g. Srilanka, Nepal and some countries yet to start, e.g. Maldives, Bhutan. Heterogeneity of nuclear medicine practice is one of the biggest challenges in Asia (2).

To promote the development of Nuclear Medicine & Biology in the Asian Region and also to unite national societies or groups in the field of Nuclear Medicine & Biology throughout Asia & Oceania, the Asia and Oceania Federation of Nuclear Medicine and Biology (AOFNMB) was inaugurated provisionally in October 1969 in Tokyo at a gathering of 21 delegations from the nine member countries and regions. This covers the entire Asia and Australasia continents. For more coordinated regional approach the Asian Regional Cooperative Council for Nuclear Medicine (ARCCNM) was officially founded at the 1<sup>st</sup> Executive Board Meeting in Hong Kong, China in February 2001 with the main aim of fostering the spread of Nuclear Medicine in this region of Asia. The ARCCNM, is

committed to promote nuclear medicine knowledge in Asia, particularly in developing and less developed countries, has been cognizant of this heterogeneity in the practice and training of nuclear medicine in Asia.

Traditionally AOFNMB held congresses after 4 years. The interval of the congresses was decided to shorten to 2 years beginning from 2015: the 11th Congress will be held in Jeju, Korea in 2015 and the 12th Congress in Yokohama, Japan in 2017. Further changes were made at the National Delegate Assembly, which was held during the Annual General Meeting of the ARCCNM in October 25, 2012 in Seoul, Korea to shorten the interval of the Congresses to two years by 2023 and to one year thereafter. There are several regional meetings in Asia Oceania: Annual General Meeting of the Asia Regional Cooperative Council for Nuclear Medicine (ARCCNM), biennial meeting of the Far East Asian countries named by the CJK congress, Australia-New Zealand society meeting, Gulf regional meeting and many countries national societies' conferences like Society of Nuclear Medicine, Bangladesh (SNMB).

Problems of the meetings and courses include language and finance. The meetings and courses are held only in English, which can be a barrier to many Asian people. Financial support is limited to a few individuals. ARCCNM supports 25 young investigators each time. Global economic crisis makes financial support even more difficult especially from the business side. ARCCNM started the Asian School of Nuclear Medicine (ASNM) as an educational arm in 2003. The goal of ASNM is to facilitate the spread of knowledge of nuclear medicine in Asia by fostering nuclear medicine education in Asian countries through promotion of training for nuclear medicine physicians, technologists, radiopharmacists, medical physicists, and other allied professionals (3). Currently the Asia Oceania Journal of Nuclear Medicine and Biology (AOJNMB) which is the official journal of AOFNMB publishes two issues a year, 10 papers in each issues.

Unlike Europe or North America there are no formal Board certifications in Asia. Each country follows own pattern of curriculum, training and post-graduations, so there is a great disparity among the nuclear medicine professionals. To have an equivalent level of knowledge and expertise some sort of certification is necessary. The European Board of Nuclear Medicine (EBNM) is a good example of qualifying trainees. ARCCNM initiated the Asian Board of Nuclear Medicine (ABNM) in 2011, and is planning to have the first examination of ABNM in 2014. Candidates may enroll for

and take a written exam each year at the Annual General Meeting of ARCCNM. ABNM and EBNM are working together to make the first exam successful (3). The aim of ABNM is to address growing concerns on the inhomogeneity of training & practice of Nuclear Medicine in Asia; to strengthen training programs by developing curriculum of appropriate content that integrates the radiological sciences into molecular imaging and to form a resource for use when designing or strengthening national training programs. The eligibility for registering and taking the Board examination has purposefully been kept easy. Any medical graduate, registered with the national medical council or association, who has 5 years or more experience in clinical nuclear medicine would be eligible to sit for the exam. This experience might be while still on a training program or already in practice. Moreover, ARCCNM shall provide some financial assistance to candidates accepted to sit for the exam. Furthermore, registration fees for the ARCCNM Meeting will also be waived off for selected candidates (4).

In a very recent AOFNMB, ARCCNM, ASNM Leadership Meeting held in Seoul on 14-15 Feb, 2014 a number of issues regarding the Asian Nuclear Medicine scenario were discussed. Participants of the meeting were Henry Bom (President of AOFNMB), Jun Hatazawa (Chairman of ARCCNM), Gang Huang (Dean of ASNM), Raihan Hussain (Secretary General of AOFNMB, Treasurer of ARCCNM), June-Key Chung (Honorary Chairman of ARCCNM), Dong-Soo Lee (Director of Academy-AOFNMB), Kyung-Han Lee (Secretary General of ARCCNM), Ho-Young Lee (Treasurer of AOFNMB), Jae-tae Lee (Congress Chairman of AOFNMB 2015). The meeting decided to have regional training centres as for example in Seoul university, Osaka university and Shanghai university campuses, where placement for young doctors and scientists would be arranged. ASNM Campus is a regional training center for general nuclear medicine as well as some specific fields located in centers of excellence designated by ASNM. CME sessions are also being planned for Immunology, PET/MRI, and BNCT in Osaka congress in November 2014. Similar CME programme as well as an Olympiad for the first time is also being planned during Beijing Congress of CSNM this year. The meeting also decided to honor the nuclear medicine physicians by providing three level fellowships ABNM: Fellow for the juniors, Distinguished Members for the seniors and Honourary Fellows for the very senior retired persons having immense contribution in the field of nuclear medicine.

AOFNMB, ARCCNM and ASNMB are working together for the betterment of the nuclear medicine scenario in all aspects of scientific and academic activities, human resource developments and promotion of newer technologies in the region. Our desired goal is to achieve the “ten – ten policy”, i.e. we should plan to increase our activities by ten times in ten years period as proposed by the Secretary General in Mumbai 2013 congress.

**References:**

1. <http://www.worldpopulationstatistics.com/asia-population-2013/>
2. Bom H, Chung J, Lee M. A Decade of the Asian Regional Cooperative Council for Nuclear Medicine: A Path to Reduce Heterogeneity of Nuclear Medicine Practice in Asia. *World J Nucl Med* 2011;10:113-4.
3. Bom HS. History and Perspectives of AOFNMB Asia Oceania *J Nucl Med Biol.* 2013;1(1):3-5.
4. Sabih D. The Asian Nuclear Medicine Board (ANMB); Why Do We Need It? *Asia Oceania J Nucl Med Biol.* 2013; 1(2):1-3.