

AbstractID: 14350 Title: Situation of Professional Development of the Medical Physicist in P.R. China

There is no systematic training programs for medical physicists recognized by the Educational Ministry of the central government. However, clinically oriented medical radiation physicist training programs for post-graduates, B.S., M.S., and Ph.D. degrees are now available in following universities: Peking Union Medical College Beijing, Qinghua & Beijing University Beijing, Wuhan University Hubei Province, Shiquan University Shiquan Province, Nanjing Aeronautics & Astronautics University, Taian Medical College, Shandong Province, etc. , and on-site training programs for young medical physicist being carried out in major hospitals for a period of 6~12 months; short-term intensive workshops and training courses running for a period of 2~4 weeks on specific therapeutic and diagnostic techniques and physics, such as CT/MRI/PET courses, 3DCRT & IMRT courses, TBI technique, SRS(SRT) technique, etc. since late 1970. Apart from that there is a DTT program sponsored by Varian China going on in mainland China that will speed up the professional training of Chinese medical physicists.

There is a big gap between the market demands and the available numbers of qualified medical physicists due to the following reasons: not enough number of graduate programs for training medical physicists; current programs do not meet common standards as lacking qualified lecturers and clinical practice opportunities, and few programs have a complete set of courses. For the medical physicists who have already been working in the clinics, the professional competency for some is questionable because of poor educational background and training, and there is no medical physics residency program. To solve the above mentioned problems, we are trying to seek policy support and get professional recognition of medical physicist from authorities. At the same time a lot of efforts should be done to enhance education and training by setting up Medical Physics residency programs and more graduate programs in big centers, and for that a strict accreditation system needs to be set up.

There is a Shang Gang examination system administered by the Public Health Ministry since 1996 and executed yearly by the academic societies like Radiology, Radiation Oncology, Ultra-Sonic, Nuclear Medicine, etc. which are affiliated with the Chinese Medical Association. This examination system is designed only for those medical physicists who are involved in using and operating LA, CT/MRI, PET, etc. for all levels of physicists no matter what academic background they possess but only for license that is nothing at all related to academic accreditations for medical physicists. In Xiangshan meeting held in 2004 in Beijing, we intended to set up in China a profession system for medical physicist working in hospitals and clinical-oriented research institutes as a four-level system in parallel to medical physicians: Assistant Medical Physicist; Medical Physicist; Associate Professor of Medical Physics; and Professor of Medical Physics. To qualify, one has to meet certain entrance academic requirements like BS, MS, PhD degrees of physics or related science, and to have a minimum period of time working in clinics, and to get a minimum score by paper examinations before promotion to one of the four qualified professional levels of medical physicist.