

Pannel Discussion

Training in nuclear medicine.

The Present and Future Status of Training in nuclear Medicine in Japan

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The present and future status of training in nuclear medicine in Japan were reviewed on the basis of questionnaire to the universities and faculties of medicine in Japan.

Twenty-four (22 radiologists and 2 nuclear medicine specialists) of 63 universities, where questionnaire was sent, answered. Here, nuclear medicine was defined as including all applications of radioactive materials in diagnosis or treatment or in medical research, with the exception of the uses of sealed radiation sources in radiotherapy.

1. The present and future states of undergraduate training in nuclear medicine:

Undergraduate training in nuclear medicine is performed by the department of radiology in 62.5%, by both the department of radiology and health physics in 12.5%, by the department of nuclear medicine in 8.3% and by the others. The teaching staff involved exclusively with nuclear medicine was 1 or 2 doctors in average in the department of radiology, and was very few physicist or radiopharmacist.

The facilities for the practice of preclinical training of the undergraduate were provided in 8 of 18 universities and those of clinical training were used together with those for clinical laboratories.

One to 5 hours were occupied for each lecture of nuclear physics, instrumentation and mahte-

matics, radiation biology, radiation protection, radiopharmaceuticals, imaging methods, functional studies, metabolic studies and in vitro methods by 1 to 5 doctors. Practices for these subjects were performed only in a few universities.

Sixty-seven percent of answers recognized the need of establishing the departments of nuclear medicine and of health physics to give sufficiently the training of nuclear medicine. They also answered the needs of having health physicist, biologist, engineer, chemist and radiopharmacist in these departments.

2. The present and future states of postgraduate training.

According to the questionnaire carried out 1974 by the nuclear medicine developing committee of Japan Radioisotope Association, all of 86 councilors of the society of nuclear medicine who answered to the questionnaire realized the necessity of nuclear medicine services in the university. And they expected every diagnostic and therapeutic procedure should be done in the department of nuclear medicine. On the basis of the questionnaire which was answered by 67.8% of 149 councilors of the society of nuclear medicine, all except 2 recognized the need need of qualifying for the doctors engaged in nuclear medicine. As qualification, various opinions such as only instructing basic

knowledge necessary for radiation control by a short courses or having 1 to 2 year training period before qualification.

As the postgraduate training courses, (1) the training suggested by the seminar on the training in nuclear medicine held by IAEA/WHO, 1974, (2) training system promoted by Japanese society of radiologist and (3) American board of nuclear medicine established in 1971 are considered.

According to the questionnaire, 27% of 101 councilors answered to have a society's own special board, 20% insisted to promote the board carried on by Japanese society of radiologist, and 48%

answered jointed board system such as American board of nuclear medicine.

In all systems, the training period was 1 to 2 years.

In conclusion, almost all the doctors engaged in nuclear medicine recognized the necessity of qualification, and this improves and maintains the quality of nuclear medicine. I expect the board of the society to start the committee discussing this problem, to full up the postgraduate training by making a system agreed with a actual state of nuclear medicine in Japan and nuclear medicine getting more and more prosperous.

Education and Training of the Nuclear Medicine in the World

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World wide survey on the current situation of education, training and practice of nuclear medicine was performed.

After introductory remark, above mentioned informations in Chechoslovak, Denmark, France, Austria, East Germany, Holland, Great Britain, Latin American countries such as Argentina, Brazil and Columbia, Egypt, Nigeria, Switzerland and Iran are summalized.

Special attention was, then, paid upon the American Board of Nuclear Medicine. Based on the data kindly provided by Dr. J. F. Ross, detailed analysis was made on the following subjects those include general aspects of institutional requirements for residency training program, 1) General program requirement and 2) Hospital requirement. Then relating especially with nuclear medicine following subjects were carefully analized. These are 1) Institutional requirements for training

programs in nuclear medicine, 2) requirements for residency training in nuclear medicine and 3) requirements for specialty certification in nuclear medicine. Even the practical temporary solutions such as an alternative training requirements for nuclear medicine in effect until Jan. 1977 was discussed.

Regarding closely related two groups such as nuclear radiology and radioisotope pathology (RIP), current situation of training program in the U.S. was analized in detail. It is because we are also needed some crucial solutions on these relating fields of nuclear medicine. This discussion was also based on the material supplied by Dr. Ross and extended on 1) Essentials for certification in diagnostic radiology with special competence in nuclear radiology 2) Essentials of training programs in nuclear radiology 3) Radioisotopic pathology: requirements for training and 4) Radio-