

The First Specialist Qualification Examination of the Japanese Society of Intravascular Neurosurgery (JSIN)

W. TAKI, K. GOTOH, A. HYODO, T. HYOGO, K. KINUGASA, T. KOIKE, Y. KONISHI, M. NEGORO, S. NEMOTO, K. NIIMI, K. SATOH, M. SONOBE, A. TAKAHASHI, T. TERADA

*The members of the board of specialist qualification system of the JSIN
The office for the Specialist Qualification System of the JSI, Department of Neurosurgery, Mie University, Medical School
Mie Prefecture, Japan*

Introduction

In the past 25 years, interventional neuroradiology (IVNR) has widened its application not only to cerebrovascular diseases but also to vertebroplasty and tumor embolization. Gradually the positive evidence of its usefulness has accumulated in many diseases, and along with the progress of IVNR, the membership of the JSIN rapidly increased. Members now number 1431 (5/24/2002) and include 1200 (83.9%) neurosurgeons, 96 (6.7%) radiologists (neuroradiologist), 31 (2.2%) physicians, eight (0.6%) emergency doctors and 96 (6.6%) others. IVNR requires a great deal of knowledge, techniques and experience to do with the important but vulnerable central nervous system. The basic therapeutic level should be secured by the Society to avoid unnecessary complications which are caused by improper techniques and immature experiences. Hence, there arose the expectation to provide a proper educational system and a rigid selection system for the specialist in JSIN.

The Preparation Committee and the Issues

The preparation for the specialist qualification examination and educational system were started. At the beginning, six members were

appointed to a preparation committee in 1997 at Okayama. The six members were K. Gotoh, K. Kinugasa, M. Negoro, M. Sonobe, A. Takahashi and W. Taki and they had to tackle many issues. One of the main issues was what kinds of selection measures are appropriate for qualification of a specialist. The preparation committee started to prepare the examination system, and there arose strong opposition from many people claiming the examination is not the best and the only way for education to make a specialist. The committee was also accused of only holding an examination without taking educational measures such providing seminars. This was a reasonable proposition and to respond to this the country was divided into seven districts, and annual or biannual educational meetings or seminars were started in each district, hosted by the regional societies.

There was also an oppositional proposal that there had already been a specialist examination for neurosurgery, roentogenology and neurology, so why was the new specialty examination required by the JSIN? Those societies' examinations are deemed useful for acquiring very basic knowledge about IVNR but not enough to cover progressive IVNR. Also the evaluation of the practical aspect is considered essential in this field.

In the process of preparation, the committee needed to gain the consensus with the neurosurgical society and the neuroradiological society. Dr. Gotoh and Dr. Takahashi made a great effort in negotiation with the society of neurosurgery and also neuroradiology and in 1999 the consensus between those societies were almost established.

Another issue was how to cope with emergency cases. If an acute embolic occlusive case is transferred to a hospital where an IVNR specialist is absent, how could the situation be managed? Thus the treatment guidelines such as fibrinolysis were devised for emergencies but the guidelines are not complete and the JSIN still needs to finish its task.

The Qualification System

In the year 2000, at the Sendai meeting, the proposed qualification rules about the specialty system by the committee were adopted at the general assembly. The main point of the rules was that there are two classes of specialist. One is a consulting specialist, the other is a specialist. The consulting specialist is selected from the specialists. Before qualifying as a specialist, candidates must have trained for more than five years at the neurosurgical service or neuroradiological service. Plus these five years, they must have trained under the supervision of a consulting specialist for more than a year. During those six years, they must have gained experience of more than 100 cases, including the required minimum number of the various cases considered important for qualification. After the application is accepted, candidates must pass the examinations mentioned below.

The qualification of a consulting specialist requires that the applicant must be a specialist and have published more than three papers directly connected to interventional neuroradiology. The applicant must also have finished more than 200 cases as an operator and acquired the minimum number of the various cases deemed important to be a leading interventionalist. After being admitted as a consulting specialists by the specialty board, they must educate trainees, help prepare the specialty examination and frequently act as examiners.

In processing the examination style, there was a repetitive discussion about how to evaluate the practical technique. The committee decided to include the practical test in the examination.

After three years of preparation, the regulations of the specialty system were adopted and implemented at the general assembly of the JSIN of the year 2000, on 18th November in Sendai. At first, 14 members were qualified as consulting specialists thorough strict examination of the application forms by the board of the JSIN. The JSIN board immediately appointed those 14 members as the first specialist qualification committee and they promptly started the next step which was to prepare the first open application for consulting specialists. There were 52 applicants and after strict inspection, 34 were qualified as consulting specialists. Those total 48 consulting specialists started to prepare for the first qualification examination of specialists.

The First Qualification Examination of Specialists

The first examination was held from 27th to 29th January at Osaka city. 153 among 154 applicants took the examination and one was absent.

Among 154 applicants, there were 137 specialists of the Japanese neurosurgical society, 14 specialists of the Japanese neuroradiological society, one specialist of Japanese neurological society, one applicant who was not a specialist of any society and one applicant who had both titles of specialist in neurosurgery and neuroradiology. The average age of applicants was 40.3 years (32-53).

The examination consisted of written, oral and practical tests.

The 200 questions of the multiple choice style were adopted in the written test. In compiling the written test, each of the newly qualified 48 consulting specialists contributed an allotted number of questions. The questions collected were examined for quality and the highly rated top 200 questions were adopted. The written test asked for knowledge in the field of neuroanatomy, neurophysiology, neuropathology, neuropharmacology, basic radiology, instruments, occlusion test, aneurysm,

arteriovenous malformation, dural arteriovenous shunt, tumors, occlusive cerebrovascular diseases, etc. In preparation for the written test, the committee was uneasy about the possible unexpected results, but fortunately the results were in good distribution of the normal probability curve. In the written test, 130 (85%) applicants passed and proceeded to the oral test.

The oral test comprised four parts covering the basic technique, proper handling of instruments and materials, practical questions about the treatment of aneurysm, AVM, fibrinolysis, angioplasty and so on. In each part, two examiners questioned an applicant for 20 minutes and each candidate had to go through all four parts. In every interviewing room, microcatheters, guide wires, balloon catheters, coils, embolization materials, angioplasty balloon catheters, stents, etc. deemed necessary were prepared. In general, candidates was shown the key films of the patient and was asked diagnosis, indication and treatment strategy. Then they were asked to simulate the actual procedure using the instruments. In the oral test, 112 (87%) passed and proceeded to the practical test which is now underway and will be finished on the last day of August.

In the practical test, on a prefixed day, two examiners visit a hospital to which the applicants belong to observe the procedures and judge whether their strategy, skill and technique are acceptable or not. The aim of the

practical test is principally to evaluate the applicant's skill but also to check the safety in the angiographic suite, and to spread the high standard of the technique, instrumentation and facility.

Almost 90% of the candidates finished the practical test and we will have about 100 specialists at the end of August 2002. Now the practical tests are being completed and the examiners generally evaluate the average level of the applicants who passed the written and oral test was appropriately high, suggesting the first written and oral test were suitable for selection of specialists.

The committee is now discussing the results of the entire first examination for preparation of the second examination. The committee thinks that there should be more precise guidelines for the examination and also more detailed refinement of the oral and practical tests. The second examination will be held in March, 2003 and the estimated number of applicants is around 100.

The JSIN society will continue to complete the specialty system and aims to provide better IVNR treatment in Japan.

Waro Taki, M.D.
Professor and Chairman
Department of Neurosurgery
Mie University, Medical School
2-174, Edobashi, Tsu City
Mie Prefecture, Japan