The Japanese Association of Rehabilitation Medicine

Development of Rehabilitation Medicine in Japan

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History of the Development of Rehabilitation Medicine in Japan

The Japanese Association of Rehabilitation Medicine (JARM) was founded in 1963 for the purpose of promoting the advancement of medicine and dissemination of knowledge concerning rehabilitation and contributing to the development of science and culture.¹ Since then, the Association has been playing important roles in establishing rehabilitation medicine in Japan and leading its progress. The Association expanded with the increasing social recognition of rehabilitation medicine marked by the introduction of the medical specialist scheme (1980), the registration of JARM as a public-service corporation (1989), the acknowledgement of "rehabilitation" as a specialty (1996), and the accreditation as specialists who are allowed to advertise as such (2004).^{1,2} The membership increased from 64 persons at the time of establishment to the present number exceeding 9,700 during the period of 40-odd years (Fig. 1). In 2002, "rehabilitation science" was listed as a subdivision of the Ministry of Education, Culture, Sports, Science and Technology Grant-in-Aid for Scientific Research, setting an enabling environment for the promotion of basic and clinical study related to rehabilitation medicine. Furthermore, as a result of efforts made by JARM, rehabilitation became a part of the core curriculum of medical education and the national examination for the physician's license. Reflecting these changes in circumstances, the number of colleges and universities teaching rehabilitation medicine increased from less than 10 in the 1970s to about 20 at the present. However, all of the 80 medical departments and medical colleges should ideally have rehabilitation

courses so that they can provide well-founded education, research, and clinical practice. The actions toward this goal are an important challenge for the future.

Roles of Rehabilitation Medicine in Medical Care

Rehabilitation medicine is a branch of medicine addressing the patient's bodily functions and daily living functions such as locomotion, cognition, swallowing, and excretion using a team approach. It relies on a comprehensive holistic approach including not only the treatment of diseases and impairments but also the rebuilding of living, reintegration into society, and response to mental problems. Although rehabilitation is often incorrectly equated to the training to cope with residual impairment, the most important role of rehabilitation medicine actually lies in prevention. That is to say, targeting patients with a high risk of impairment, it attempts to reduce risk and prevent impairment. When an acute disease has developed or an invasive treatment such as surgery is needed, rehabilitation specialists attempt to minimize future impairment by encouraging movement within safe limits as early as possible and preventing immobilization syndromes. Even after impairment has become established, prevention of the "vicious circle of immobility" resulting from sedentary living and bed rest due to a disease is important as a means to prevent the development and aggravation of care-requiring conditions. The risk of the vicious circle of immobility developing exists at all stages from the acute phase to the community living phase, and the most important role of rehabilitation medicine lies in the prevention and minimization of impairment through

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Fig. 1 Yearly trends in the membership of the Japanese Association of Rehabilitation Medicine, the number of medical specialists, the number of accredited clinicians, and the number of authorized training facilities. Specialist physicians are publicly authorized by the Japanese Board of Medical Specialists and are allowed to advertise as such. Accredited clinicians are certified by the Association to have an appropriate level of clinical capability in rehabilitation.

accurate prognosis prediction and early intervention. This approach improves the patient's functions and QOL and shortens the hospitalization period, making it possible for us to contribute to the improvement of the quality and efficiency of medical care.

JARM has been making proposals regarding the promotion of preventive rehabilitation, the full implementation of the rehabilitation-first principle (the idea that rehabilitation medicine should be offered sufficiently before the use of long-term care services), and the reform of the social security system including medical insurance, long-term care insurance, and the Independence Support Law. Also in cooperation with other societies and associations, it has developed and published guidelines regarding stroke rehabilitation, respiratory rehabilitation, safety management, cerebral palsy rehabilitation, collaboration among medical institutions, and clinical study and surveys, aiming at the quality improvement and standardization of rehabilitation medicine. The Association is committed to further enhancement of these activities.

Actions for Human Resource Development

Because rehabilitation medicine involves physical restoration training starting early when the patient is still in an unstable condition, it requires the ability in accurate risk evaluation and judgment



Fig. 2 Number of articles from Japan published in major international journals on rehabilitation The number exceeded 10 per year in the latter half of the 1990s and has been in excess of 20 per year since 2001.

in treatment directions. Training high-quality specialists who can manage the entire program ranging from the acute phase to the community living phase is an important challenge. The rehabilitation specialist accreditation scheme was initiated in 1980, and there are 1,649 specialists accredited in this scheme as of June 2009 (Fig. 1). The supply of specialists, however, is not catching up with the ever-increasing need for rehabilitation medicine resulting from the rapid increase in high-age population, as well as the sophistication of medicine in such fields as neonatal medicine, life-saving medicine, organ transplantation, and regenerative medicine and the more complex forms of impairment such as multiple impairment.

JARM estimates that approximately 4,000 rehabilitation specialist physicians (physiatrists) are needed in response to these needs. At the present pace of increase, which is 50–80 persons per year, it would take at least 30 years before this required number is satisfied. To fulfill the responsibility to society, the Association is addressing the urgent need to take measures to increase the number of specialists dramatically while maintaining quality. For this purpose, JARM has launched a Working Group to Develop an Action Plan for Specialist Training spanning relevant committees within the Association to work toward the development and implementation of a viable plan.

New Development of Research in Rehabilitation Medicine

To gain a secure position in the medical community, rehabilitation medicine must be established as a field of science integrating basic and clinical research in addition to track records in clinical practice. Many new study themes related to rehabilitation medicine have recently come into view, including those in central nervous system plasticity, organ transplantation, regenerative medicine, and aerospace medicine. There is a need for powerful promotion of research at the level of organs and cells, at the level of individuals, and at the level of society focusing on the key concepts of "restoration of function and improvement of QOL." The number of articles submitted from Japan to international journals has been increasing (Fig. 2),^{3,4} and the presence of Japan has become substantially large in all international academic conferences on rehabilitation medicine. The Association is now working to build an enabling environment for the accumulation

of quality clinical data and the international publication of clinical evidence from multicenter

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studies, opening possibilities for major development in the future.

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