J Rehabil Med 2011; 43: 760–764

SPECIAL REPORT

TOWARDS A CONCEPTUAL DESCRIPTION OF PHYSICAL AND REHABILITATION MEDICINE

Christoph Gutenbrunner[1], MD, PhD, Thorsten Meyer[2,3], PhD, John Melvin, MD[4] and Gerold Stucki, MD[2,5]

From the [1]Department of Rehabilitation Medicine & Coordination Centre of Rehabilitation Research, Hannover Medical School, Hannover, Germany, [2]Swiss Paraplegic Research (SPF), Nottwil, Switzerland, [3]Institute for Epidemiology, Social Medicine and Health Systems Research, Hannover Medical School, Hannover, Germany, [4]Department of Rehabilitation Medicine, Jefferson Medical College, Thomas Jefferson University, Philadelphia, PA, USA and [5]Seminar of Health Sciences and Health Policy, University of Lucerne, Switzerland

Physical and Rehabilitation Medicine (PRM) is an independent medical specialty focusing on the improvement of functioning. A shared understanding of concepts is of vital importance for integrated action in this field. The aim of the present paper is to provide a conceptual model of PRM, to give background on its development and adoptions, and to explain the choice of terms, phrases, and concepts. It is based on the terms and concepts of the International Classification of Functioning, Disability and Health (ICF) that provides a widely accepted conceptual model and taxonomy of human functioning. Based on the White Book on Physical and Rehabilitation Medicine in Europe of 2006 a first proposal for a conceptual description of rehabilitation has been published in 2007. This proposal has been subjected to comments for modifications and amendments. E.g. it was underlined that PRM can apply both a health condition perspective including curative approaches and measures aiming at body functions and structures and a multi-dimensional and multi-professional team approach aiming to optimize functioning from a comprehensive functioning and disability perspective. The interaction between the PRM specialist and the person should be characterized as a partnership. PRM specialists work across all areas of health services and across all age groups. In summary, the specialty of PRM is characterized as the medicine of functioning.

Key words: Physical and Rehabilitation Medicine; conceptual description; International; Classification of Functioning; Disability and Health; medical speciality.

J Rehabil Med 2011; 43: 760–764

Correspondence address: Christoph Gutenbrunner, Department for Rehabilitation Medicine, Coordination Centre for Rehabilitation Research, Hannover Medical School, Carl-Neuberg-Str. 1, DE-30625 Hannover, Germany. E-mail: gutenbrunner.christoph@mh-hannover.de

Submitted March 16, 2011; accepted July 5, 2011

BACKGROUND

Physical and Rehabilitation Medicine (PRM) is an independent medical specialty working in prevention, therapy and rehabilitation. Its main focus is on the improvement of functioning (1, 2). PRM is a growing discipline. Various societal and medical trends, including the ageing of populations, the increasing number of people with functional limitations due to improving survival rates in different disease entities (e.g. stroke, spinal cord injury, multiple trauma) and the need of elderly workers to remain integrated in the workforce despite the presence of chronic illnesses, call for an increasing importance of rehabilitation in the future.

PRM deals with various disease entities with functional limitations (1–3). It is therefore a medical specialty that is not defined by a disease or organ system. Functioning and its limitations are important in acute, post-acute and the long-term care of persons with disabling and/or chronic health conditions. The International Classification of Functioning, Disability, and Health (ICF) of the World Health Organization (WHO) provides a widely acknowledged and accepted conceptual model and taxonomy of human functioning, including body structures and functions, activities and participation, as well as the contextual factors (4).

PRM is part of the multi-disciplinary and multi-professional field of rehabilitation (1–3, 5). Integrated action is a prerequisite for successful rehabilitation. Because, by definition, limitations in functioning represent multidimensional problems, there is considerable overlap with other medical and non-medical health professions. Rehabilitation represents an area where professionals with different backgrounds and concepts need to cooperate. Therefore, a shared understanding of terms or concepts is of vital importance for integrated action. Definitions and conceptual descriptions are tools to foster shared understanding and to influence similar perceptions of problems by different stakeholders (6).

In Europe, the publishing of the *White Books on Physical and Rehabilitation Medicine* in 1989 and 2006 served as landmarks for PRM (1, 2, 7). They were set out to describe the nature, field and characteristics of PRM. They aimed at harmonizing standards and understandings of PRM in Europe as a specialty within medicine and within rehabilitation care, and were also thought to provide a common identity of PRM as an emerging medical specialty.

The *White Book on Physical and Rehabilitation Medicine in Europe* of 2006 (1, 2) includes a proposal for a definition of PRM that was elaborated in a paper in the *Journal of Rehabilitation Medicine* in 2007 (8). It is based on the understanding of rehabilitation as a health strategy, distinct from but related

© 2011 The Authors. doi: 10.2340/16501977-0866
Journal Compilation © 2011 Foundation of Rehabilitation Information. ISSN 1650-1977

to curative, preventive and supportive health strategies (9). As mentioned above, rehabilitation is the core strategy of the PRM profession. The ICF serves as the main reference for a conceptual description of rehabilitation (10) and therefore should be the basis of a conceptual description of PRM. The leading international organizations of PRM[1] have endorsed the ICF as a common framework for rehabilitation. In addition, a common understanding of rehabilitation as a health strategy based on the ICF has been adopted by the Section and Board for Physical and Rehabilitation Medicine of the European Union of Medical Specialists (UEMS-PRM Section and Board), the European Society for Physical and Rehabilitation Medicine (ESPRM) and the European Academy of Rehabilitation Medicine (EARM) (10). To strive towards a common understanding of PRM has also been set out as a key element of current UEMS-PRM Section activities (11).

It might prove to be too ambitious to reach a common *definition* of PRM suited for different purposes and stakeholders, e.g. to inform other medical disciplines, other health professions, and patient groups, as well as those participating in healthcare policy and management. In order to provide a common general understanding of PRM as a medical specialty within the field of rehabilitation, it is useful to develop a conceptual description of PRM that can serve as a reference for PRM definitions from different perspectives or instrumental to different purposes.

The aim of the present paper is to provide such a conceptual model of PRM, to provide background information on its development and adoptions, and to explain the choice of terms, phrases, and concepts.

DEVELOPMENT OF THE CONCEPTUAL DESCRIPTION

The present development of a conceptual description of rehabilitation dates back to the *White Book on Physical and Rehabilitation Medicine in Europe* of 2006 (1, 2) and a paper in the *Journal of Rehabilitation Medicine* in 2007 (8) that was published in conjunction with the Professional Practice Committee of the UEMS-PRM Section. It was also presented within discussions about a publication dealing with the *White Book* in the *American Journal of Physical and Rehabilitation Medicine* in 2009 (12).

Both the *White Book* and the conceptual description of physical and rehabilitation medicine were approved by the UEMS-PRM Section and Board, i.e. a panel of delegated experts from all European countries. The *White Book* was also adopted by the ESPRM. The conceptual description was published in the *Journal for Rehabilitation Medicine* in 2007 with a call for comments and proposals for revision. In 2009 the paper was again sent to all delegates of the UEMS-PRM Section and Board asking for further comment until its general assembly in Marseille in March 2010. This process, as well as the publications by Stucki et al. (9, 12), have led to a number of suggestions for modifications or amendments. These suggestions have been collected and discussed within a working group involving the authors of this paper. On grounds of these discussions a modified version of the conceptual description of physical and rehabilitation medicine was set up and discussed within the UEMS Section and Board as well as in the ESPRM. Both bodies adopted the final version in Marseille in March 2010. The EARM adopted this conceptual description at their Sion-meeting in December 2010. In a parallel process a conceptual description of the rehabilitation strategy (9, 10) was discussed, adopted, and submitted for publication.

The resulting conceptual description of physical and rehabilitation medicine is presented in this paper. In the second part of the paper the modification from the previous published version (8) will be discussed, reflecting the suggestions that have been sent to the authors as well as the discussions within the PRM bodies. The present conceptual description of PRM is the result of a longer discussion process, and might therefore be regarded not as an optimal, but as a best achievable, solution. We introduce here the suggestions for modifications or amendments, and elaborate on their pros and cons and their meaning.

A CONCEPTUAL DESCRIPTION OF PHYSICAL AND REHABILITATION MEDICINE

The conceptual description of PRM that has been adopted by the UEMS-PRM Section and Board and the ESPRM is shown in Table I.

The *first paragraph* (1 in Table I) makes explicit reference to the ICF as the commonly accepted model for PRM and in rehabilitation. Also, it explicitly refers to rehabilitation as a core health strategy for PRM as introduced by Stucki et al. in 2007 (8). It is the only medical discipline that has rehabilitation as a core strategy. Other medical disciplines can and should apply rehabilitation as a health strategy, too. However, PRM is "arguably the only specialty which systematically applies the rehab strategy across populations, settings and situations from the acute hospital to the community" (8, p. 289) and across all age groups. Therefore, it represents the medical specialty for the rehabilitation strategy.

The *second paragraph* (2 in Table I) characterizes the root of PRM as a medical specialty that involves diagnosis of diseases that can and should be classified in the International Classification of Diseases (ICD) (13).

At the same time, PRM is specifically characterized by the need for the complex assessment of functioning that integrates aspects of the health condition, personal and environmental factors according to the ICF. The *third paragraph* (3 in Table I) highlights that PRM physicians are specialists in the assessment of functioning. Assessment is preferred to the term "diagnosis" of functioning, since this task does not usually result in functioning entities like a diagnosis. It is best represented as a result of a multidimensional assessment at very different levels (body structures and body functions, activities, participation, health condition, personal factors and environmental factors

[1]International Society for Physical and Rehabilitation Medicine, European Society for Physical and Rehabilitation Medicine, Section and Board for Physical and Rehabilitation Medicine of the European Union of Medical Specialists, European Academy of Rehabilitation Medicine, and many other regional, sub-regional and national bodies around the world.

Table I. *International Classification of Functioning, Disability and Health (ICF)-based conceptual description of Physical and Rehabilitation Medicine (PRM)*

1 Physical and Rehabilitation Medicine is the medical specialty that, based on WHO's integrative model of **functioning, disability and health** and rehabilitation as its core health strategy,
2 • diagnoses health conditions
3 • assesses functioning in relation to **health conditions, personal and environmental factors**
4 • performs, applies and/or prescribes biomedical and technological interventions to treat health conditions
◦ in order to
- stabilize, improve or restore **impaired body functions and structures**
- prevent **impairments** and medical complications, and manage risks
- compensate for the absence or loss of **body functions and structures**
5 • leads and coordinates intervention programs to optimize **activity and participation**
◦ in a patient-centered problem-solving process
◦ in partnership between person and provider and/or carer and in appreciation of the person's perception of his or her position in life
◦ performing, applying and integrating biomedical and technological interventions, psychological and behavioral; educational and counseling, occupational and vocational, social and supportive, and physical environmental interventions
6 • provides advice to patients and their immediate social **environment,** service providers and payers
◦ over the course of a **health condition**,
◦ for all age groups
◦ along and across the continuum of care,
- including hospitals, rehabilitation facilities and the community
◦ and across sectors
- including health, education, employment and social affairs
7 • provides education to patients, relatives and other important persons to promote functioning and health
8 • manages rehabilitation and health across all areas of health services
9 • informs and advises the public and decision makers about suitable policies and programs in the health sector and across other sectors that
◦ provide a **facilitative** larger physical and social environment;
◦ ensure access to rehabilitation services as a human right;
◦ and empower PRM specialists to provide timely and effective care
10 with the goal
• to enable persons with health conditions experiencing or likely to experience disability to achieve and maintain optimal functioning in interaction with their environment.

ICF terms are marked in bold, rows are numbered in italic.
WHO: World Health Organization.

and their interaction). It also includes an assessment of legal disability, which is often in the realm of PRM.

Paragraph 4 refers to the interventional part of PRM, which, in principle, should be represented in an International Classification of Health Interventions that is being worked on currently by WHO (http://www.who.int/classifications/ichi/en/). This paragraph focuses on the interventions with which the PRM physician allies him- or herself, or that are prescribed by PRM specialists. These interventions are focused on the health conditions and related body structures and functions. They relate to what has been described formerly in a narrower sense as physical medicine. These interventions can be either applied by a PRM specialist as a single intervention or as part of a comprehensive approach within a multiprofessional rehabilitation framework. Thus, on the one hand, they apply a health condition perspective including curative approaches and measures aiming at body functions and structures. On the other hand, they apply a multi-dimensional and multi-professional team approach aiming to optimize functioning from a comprehensive functioning and disability perspective. It represents an integration of an ICD and ICF perspective that has been described as the integration of two different codes of health systems, i.e. health condition and functioning as targets of different health strategies (14). This dual perspective corresponds to the current effort to include aspects of functioning in terms of the ICF into the development of the ICD-11 (15).

The list of examples of different biomedical and engineering interventions from the first version (8) has been excluded in order to avoid an unhelpful pre-selection of major or most important types of interventions, which are always subject to change within a few years time depending on new scientific evidence from clinical studies; also it makes the conceptual description more parsimonious.

Paragraph 5 (5 in Table I) refers to the multi-modal interventions applied within the framework of the multi-disciplinary and multi-professional rehabilitation team. A main task and challenge in rehabilitation is not just the performance or application of different interventions, but the integration of these different approaches to serve the patients' needs in terms of functional outcomes. The more the health condition plays a crucial role in rehabilitation, the more prominent the role of the PRM discipline to coordinate and integrate the different interventions. The role of the PRM physician within the rehabilitation team is described here as leader and coordinator of interventions, and the main goals are the improvement of activity and participation. Of course, other rehabilitation professionals can be leader and coordinator of rehabilitation teams, especially if non-medical aspects become salient in the rehabilitation process. It should follow a systematic, problem-solving approach, e.g. by application of the Rehab-Cycle (16).

In this paragraph the original wording "to optimize performance" has been replaced by "to optimize activity and participation". In recent discussions about the ICF we have experienced that the concept "performance" has repeatedly been used with equivocal meanings. Therefore we decided to resort to the better-established concepts of activity and participation.

The field of rehabilitation is characterized by using the persons' lived experience as the starting point for intervention. Even more than in other medical disciplines, aims of interventions have to be developed within the context of a shared decision-making approach. Also, the rehabilitation patient plays *the* crucial role in achievement and maintenance of rehabilitation success. Therefore, a strong affirmation of patient-centeredness is a prerequisite of PRM.

The subjective perception of the person with disability should therefore play a crucial role in PRM interventions. This subjec-

tive perception is often referred to by the term quality of life (QoL). However, we abstained from using the term QoL in this conceptual description because it has additional and substantially diverse meanings (17). The use of the term QoL appears to be too equivocal. However, PRM-interventions may influence different aspects of QoL, e.g. improvement in functions, perception of wellbeing and health perception. Also, PRM interventions should not be introduced solely on grounds of patients' demands or preferences. The terms "partnership" and "in appreciation of" should capture the important interplay between the person with his or her subjective needs and wishes and the clinical professions, including PRM, who also have to take societal values, norms and regulations into account. The process of identifying common intervention goals on grounds of the present health condition and level of functioning is best described as a patient-centred problem solving approach that characterizes shared decision-making (18). Here, the relationship between person and provider should be designated as a partnership. Also, the PRM specialist has to lead and coordinate intervention programmes that include non-professional care-givers. This is accounted for in this paragraph, too.

Paragraph 6 relates to the role of the PRM specialist as being a central person in accompanying the person through different phases and stages of rehabilitation and to serve as a coordinator integrating the needs of the patient, his or her immediate social environment, other service providers, as well as service payers. To some extent the PRM specialist takes up the role of a "case manager". This management role is explicitly taken up in paragraph 8. However, there are other definitions of this role that may be taken up by other professionals too. For this reason the term "case manager" has not been chosen in this conceptual description.

Rehabilitation is a health strategy that applies to very different stages of a health condition and is therefore not restricted to certain types of facilities, such as rehabilitation centres, but should be part of interventions in different healthcare facilities (19). This important feature of rehabilitation is again taken up in paragraph 8 ("across all areas of health services"). Also, rehabilitation does not preclude any age group, as it applies both to children, youth, working or non-working adults, the elderly or the very old. Therefore, PRM has to take all these different groups into account. PRM services should also be integrated into different types of facilities. However, a shared framework for classification of rehabilitation services is still lacking. Such a framework should help countries to compare their efforts and put them into perspective, or to develop other types of services needed. Currently, there are first efforts within the realm of the International Society of Physical and Rehabilitation Medicine (ISPRM) to develop such framework (20).

Paragraph 7 highlights the importance of education of the patient and other persons relevant to promote functioning and health. This reflects the importance of self-management in health and functioning and the necessity of support by and of the social environment (3)

Paragraph 8 has been referred to already. It underlines that PRM specialists are managing rehabilitation in all sectors of healthcare. Relevant sectors are acute care, post-acute care and long-term care. Corresponding PRM services can be described as "acute rehabilitation" (or "rehabilitation in acute settings"; 21), post-acute rehabilitation and long-term rehabilitation. The latter includes the concepts of community-based rehabilitation (22) and intermittent in- or out-patient rehabilitation measures. The specific role of PRM in community settings has not yet been described in detail. This task could be done on the basis of the proposed conceptual description of PRM. The paragraph additionally makes clear that PRM may be active in services other than PRM departments.

Paragraph 9 highlights the importance of influencing the public and decision makers of developing suitable policies and programmes for rehabilitation. This refers to the concept of environmental factors influencing functioning of people with disabilities. The work and the success of the work of any rehabilitation profession depend on the existing environmental conditions in which the patient lives and in which the rehabilitative care operates. Participation in terms of return-to-work can hardly be accomplished in a society without some opportunities for gainful employment. The type and breadth of provision of devices for disabled persons is heavily influenced by political decisions. Therefore, PRM professionals should be active both on an individual and public health level to influence policies or programmes according to the needs of the respective persons with health conditions experiencing or likely to experience disability. These aspects are referred to the term "larger physical and social environment" differentiating the immediate aspects of environment (e.g. family).

The goal of PRM (*paragraph 10*) has been taken from the conceptual description of the rehabilitation strategy (11). It relates to achieving and maintaining optimal functioning that always implies the respective interaction with environmental and personal factors (4). In their World Report on Disability the WHO has used a similar phrase to express the goal of rehabilitation (23), i.e. "a set of measures that assist individuals who experience, or are likely to experience, disability to achieve and maintain optimal functioning in interaction with their environments" (p. 96).

FUTURE PROSPECTS

ISPRM, as an official WHO partner within the Disability and Rehabilitation-network, adopts and propagates this conceptual description of PRM to foster a world-wide common understanding of PRM.

CONCLUSION

In many developing countries, other professions are involved in the main tasks of PRM. There, as well as in developed countries, the role of PRM professionals can only be further delineated in relation the other important health professions involved in rehabilitation. Rehabilitation is multiprofessional and interdisciplinary in nature. There will always be the need to match necessary tasks to professions on the grounds of available resources.

It should be kept in mind that an over-involvement of medical professions in rehabilitation runs the danger of medicalization of problems related to functioning. At the same time it should be clearly acknowledged that most persons in need of reha-

bilitation are confronted with a health condition that should be dealt with by a profession with in-depth knowledge on physiological processes, body structures and body functions integrated into a functioning perspective. The specialty of PRM is "the medicine of functioning" (12, p. 1041).

Finally, it should be noted that the recent World Report on Disability by WHO (23) conveys key ideas that have been included in this conceptual description of PRM. PRM are said to contribute to the primary goal of rehabilitation, i.e. achieving and maintaining optimal functioning in interaction with the environment, through diagnosis and treatment of health conditions, reducing impairments, and preventing or treating complications. In addition, the World Report states that rehabilitation is cross-sectoral, "provided along a continuum of care ranging from hospital care to rehabilitation in the community" (p. 96), comprising acute, post-acute and maintenance phases.

ACKNOWLEDGEMENTS

The authors thank the following bodies for their significant contribution to the development of the conceptual description of rehabilitation as a health strategy: the UEMS-PRM Section and Board; the ESPRM; and the EARM. We would also like to acknowledge the insights provided by the attendants of the Haim Ring Mediterranean PRM summer school 2009 in Siracusa. We are grateful to Friedbert Köhler, Sydney South West Area Health Service, Australia, and Jan Reinhardt, Swiss Paraplegic Research, for valuable comments on the present version of the conceptual description.

REFERENCES

1. Gutenbrunner C, Ward AB, Chamberlain MA, editors. White book on physical and rehabilitation medicine in Europe. J Rehabil Med 2007; Suppl. 45: S1–S48.
2. Gutenbrunner C, Ward AB, Chamberlain MA, editors. White book on physical and rehabilitation medicine in Europe. Euro Medicophys 2006; 42: 287–332.
3. Gutenbrunner C, Lemoine F, Yelnik A, Joseph PA, de Korvin G, Neumann V, et al. The field of competence of the specialist in physical and rehabilitation medicine (PRM). Ann Phys Rehabil Med, 2011; 54 (in press).
4. World Health Organization. International Classification of Functioning, Disability and Health: ICF. World Health Organization: Geneva; 2001.
5. Neumann V, Gutenbrunner C, Fialka-Moser V, Christodoulou N, Varela E, Giustini A, et al. Interdisciplinary team working in physical and rehabilitation medicine. J Rehab Med 2010; 42: 4–8.
6. Reinhardt JD, von Groote P, DeLisa JA, Melvin JL, Bickenbach JE, Stucki G. ISPRM discussion paper. Chapter 4: a policy process and tools for international non-governmental organizations in the health sector using ISPRM as a case in point. J Rehabil Med 2009; 41: 823–832.
7. European Academy of Rehabilitation Medicine, European Federation of Physical and Rehabilitation Medicine, European Union of Medical Specialists (Physical and Rehabilitation Medicine Section). White book on physical and rehabilitation medicine. Madrid: Universidad Complutense de Madrid; 1989.
8. Stucki G, Melvin J. The International Classification of Functioning, Disability and Health: a unifying model for the conceptual description of physical and rehabilitation medicine. J Rehab Med 2007: 39: 286–292.
9. Stucki G, Cieza A, Melvin J. The International Classification of Functioning, Disability and Health: a unifying model for the conceptual description of the rehabilitation strategy. J Rehab Med 2007; 39: 279–285.
10. Meyer T, Gutenbrunner C, Bickenbach JE, Cieza A, Stucki G. Towards a conceptual description of rehabilitation as a health strategy. J Rehabil Med 2011; 757–762.
11. Gutenbrunner C, Delarque A. Action plan of the Professional Practice Committee – UEMS Physical and Rehabilitation Medicine Section: description and development of our field of competence. Eur J Phys Rehabil Med 2009; 45: 275–280.
12. Stucki G, Reinhardt J, Gutenbrunner C, Bickenbach J. Re: The dream of a medical specialty named physical and rehabilitation medicine: a commentary on the European white book of physical and rehabilitation medicine (Letter to the Editor). Am J Phys Med Rehabil 2009; 88: 1039–1042.
13. World Health Organization. International Statistical Classification of Diseases and Related Health Problems. Tenth Revision (ICD-10). WHO: Geneva; 1992.
14. Reinhardt JD, von Groote P, DeLisa JA, Melvin JL, Bickenbach JE, Li LSW, Stucki G. ISPRM discussion paper. Chapter 3: international non-governmental organizations in the emerging world society: the example of ISPRM. J Rehabil Med 2009; 41: 810–822.
15. Kostanjsek N, Rubinelli S, Escorpizo R, Kennedy C, Stucki G, Üstün TB. Assessing the impact of health conditions using the ICF. Disabil Rehabil 2011; 33: 1475–1482.
16. Steiner WA, Ryser L, Huber E, Uebelhart D, Aeschlimann A, Stucki G. Use of the ICF model as a clinical problem-solving tool in physical therapy and rehabilitation medicine. Phys Ther 2002; 82: 1098–1107.
17. Meyer T, Raspe H. Die Messung der Lebensqualität bei rheumatischen Erkrankungen: eine kritische Bestandsaufnahme. Z Rheumatol 2010; 69: 203–209.
18. Fenton WS. Shared-decision making: a model for the physician-patient relationship in the 21st century? Acta Psychiatr Scand 2003; 107: 401–402.
19. Gutenbrunner C, Neumann V, Lemoine F, Delarque A. Describing and developing the field of competence in Physical and Rehabilitation Medicine (PRM) in Europe – preface to a series of papers published by the Professional Practice Committee of the PRM section of the Union of European Medical Specialists (UEMS)/Décrire et developper le champ de compétences en Médecine Physique et Réadaptation (MPR) en Europe. Préface d'une série d'articles publiés par le Comité des pratiques professionnelles de la section MPR de l'Union européenne des médecins specialistes (UEMS) (Editorial/Éditorial). Ann Phys Rehab Med 2010; 53: 593–597.
20. Stucki G, von Groote P, DeLisa JA, Imamura M, Melvin J, Haig AJ, Li LSW, Reinhardt JD. ISPRM discussion paper. Chapter 6: the policy agenda of ISPRM. J Rehabil Med 2009; 41: 843–852.
21. Ward AB, Gutenbrunner C, Damjan H, Giustini A, Delarque A; European Union of Medical Specialists (UEMS) section of Physical & Rehabilitation Medicine: a position paper on physical and rehabilitation medicine in acute settings. J Rehabil Med 2010; 42: 417–424.
22. International Labour Office, United Nations Educational, Scientific and Cultural Organization, World Health Organization. CBR. A strategy for rehabilitation, equalization of opportunities, poverty reduction and social inclusion of people with disabilities. Joint position paper. Geneva: WHO; 2004.
23. World Health Organization & World Bank. World report on disability. Geneva: WHO; 2011.