

White Book of Physical and Rehabilitation Medicine in Europe

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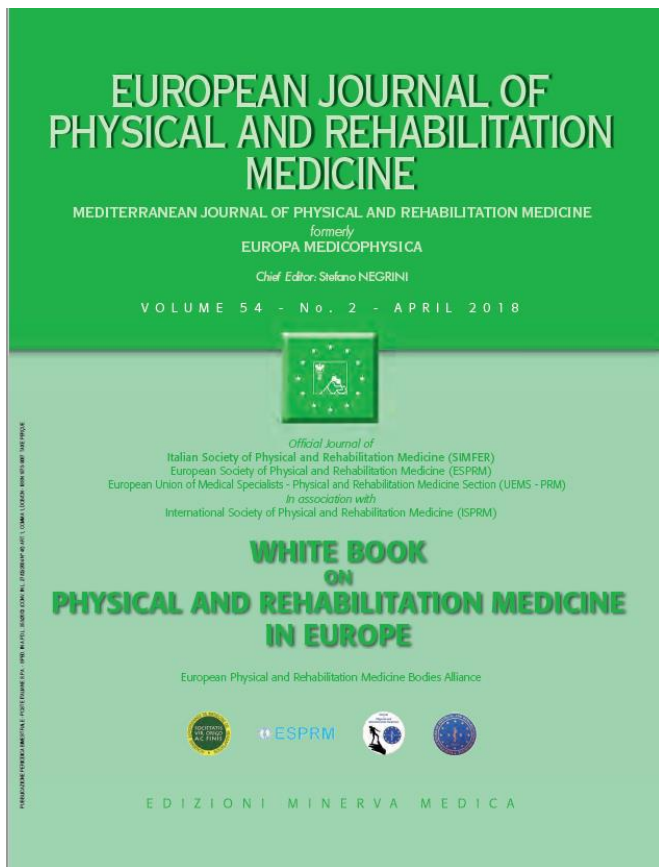
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THE WHITE BOOK ON PHYSICAL AND REHABILITATION MEDICINE IN EUROPE

[Chapter 0. Introductions, Executive Summary, and Methodology](#)

[Chapter 1. Definitions and concepts of Physical and Rehabilitation Medicine](#)

[Chapter 2. Why rehabilitation is needed by individual and society](#)

[Chapter 3. A primary medical specialty: the fundamentals of PRM](#)

[Chapter 4. History of the specialty: where PRM comes from](#)

[Chapter 5. The PRM organizations in Europe: structure and activities](#)

[Chapter 6. Knowledge and skills of PRM physicians](#)

[Chapter 7. The clinical field of competence: PRM in practice](#)

[Chapter 8. The PRM specialty in the healthcare system and society](#)

[Chapter 9. Education and continuous professional development: shaping the future of PRM](#)

[Chapter 10. Science and research in PRM: specificities and challenges](#)

[Chapter 11. Challenges and perspectives for the future of PRM](#)

Part 1. Background of PRM

Definitions in PRM

- The concepts and the specialty

Relevance of rehabilitation for people with disabling conditions and to society

- Why rehabilitation is needed

PRM: a primary medical specialty

- The core concepts of PRM



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Part 2. PRM organization in Europe

Development of PRM specialty in Europe

- Where PRM comes from

PRM activities and their representation in Europe

- How PRM is organized



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Part 3. Practice of PRM in Europe

Fundamentals of PRM

- Knowledge, skill and abilities of PRM physicians

The Field of Competence of PRM

- PRM in practice

PRM in Healthcare Systems

- Place of PRM in Healthcare and Society

Education to PRM in Europe

- Shaping the future of PRM

Science and research in PRM

- Challenges and specificities of research in PRM



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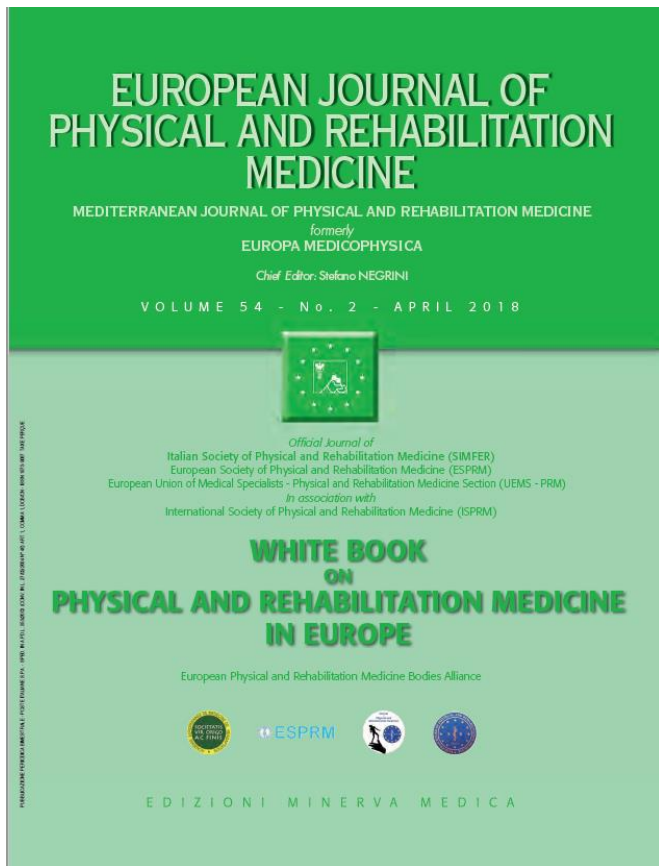
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Part 4. The way forward

Challenges and perspectives for the future of PRM



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BACKGROUND OF PHYSICAL AND REHABILITATION MEDICINE

Definitions and concepts of Physical and Rehabilitation Medicine

Physical and Rehabilitation Medicine

Physical and Rehabilitation Medicine is the **primary medical specialty** responsible for the prevention, medical diagnosis, treatment and rehabilitation management of persons of all ages with **disabling health conditions and their co-morbidities**, specifically addressing their **impairments and activity limitations** in order to facilitate their physical and cognitive **functioning** (including behavior), **participation** (including quality of life) and modifying **personal and environmental factors**



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Other definitions

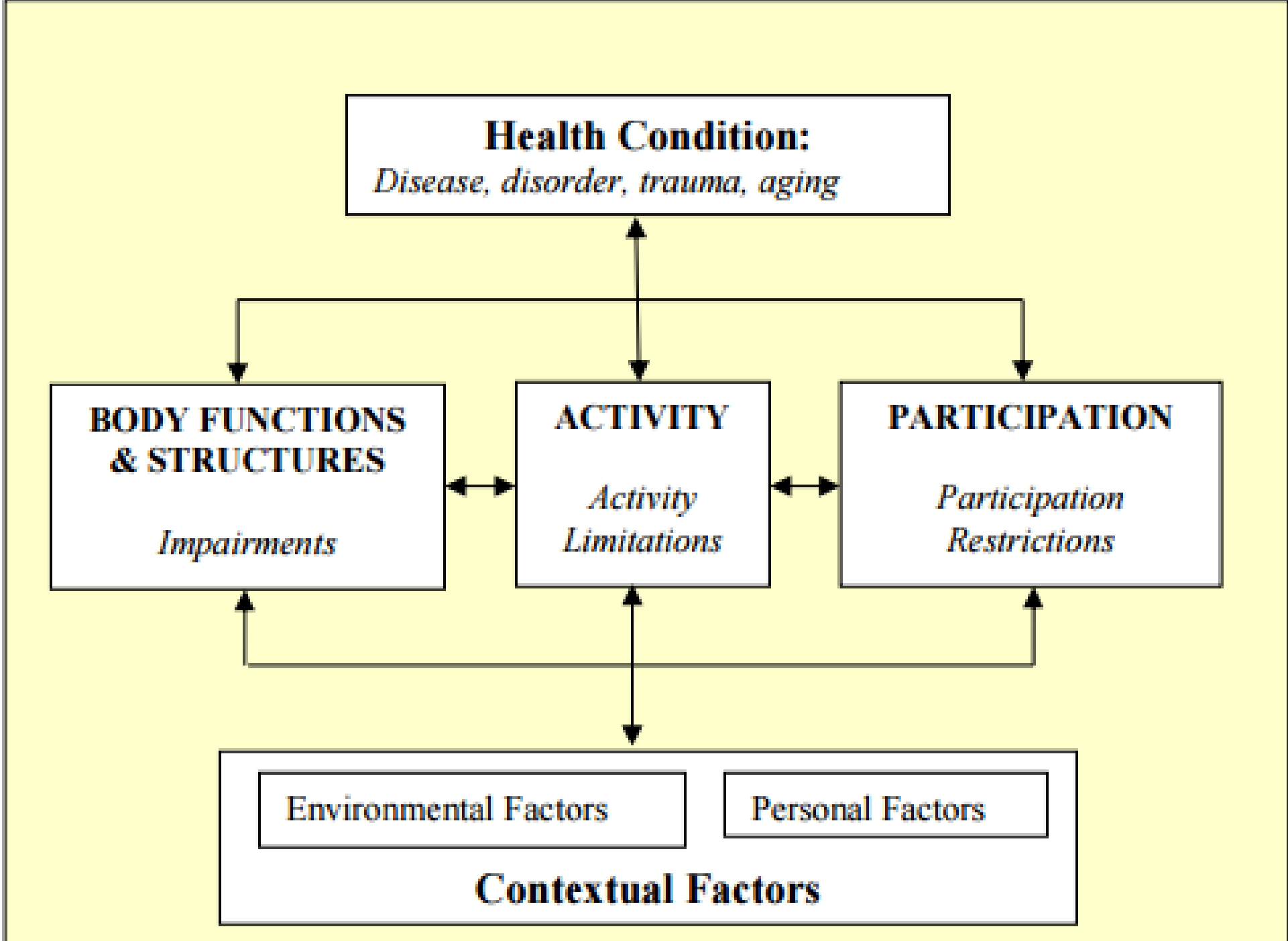
Functioning is all that human bodies do and the actions that people perform

Disability is the problem a person has performing the actions that he or she needs and wants to do, because of how an underlying health condition affects his or her performance in his or her actual environment

Rehabilitation is a set of measures that assist individuals, who experience or are likely to experience disability, to achieve and maintain optimum functioning in interaction with their environments



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Cochrane Rehabilitation definition

In a health care context (rehabilitation is a)
multimodal person-centred collaborative process (including interventions targeting a person's) capacity (by addressing body structures, functions, and activities/participation) and/or contextual factors related to performance (with the goal of)
optimising functioning (of)
persons with health conditions currently experiencing disability or likely to experience disability or persons with disability



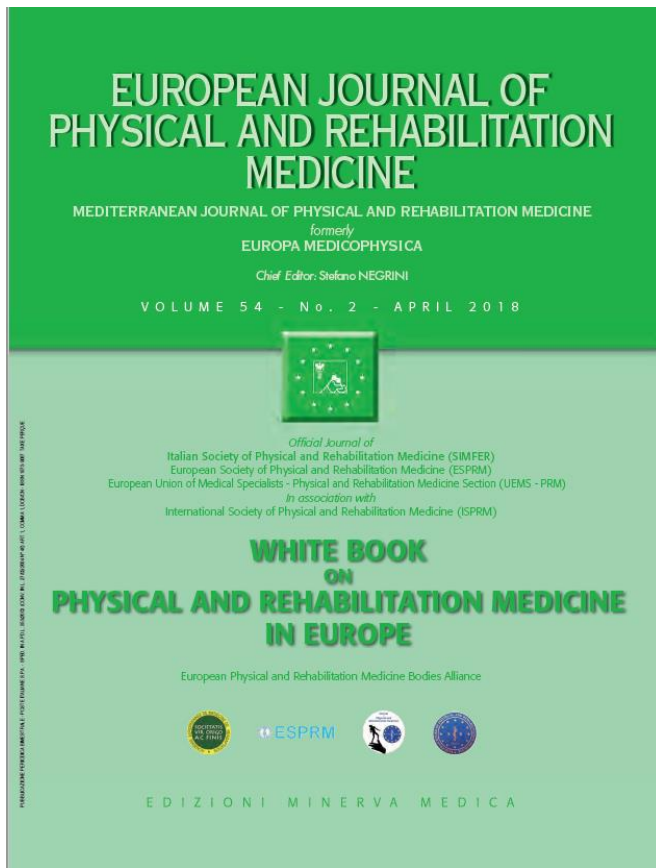
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BACKGROUND OF PHYSICAL AND REHABILITATION MEDICINE

Why rehabilitation is needed by individual and society

Demographic change in Europe

Europe's **population is growing** to a total of 742.5 million, of whom 510 million live in the 28 member states of European Union

Life expectancy is also increasing among Europeans, an increased level of disability is seen, reflected by a growth in the burden of care and higher costs

About **10%** of Western Europe's population experience a **disability**

Survival from serious disease and trauma leaves an increasing number of people with complex problems and functional deficits

Many of these people are **young at the time of their event/injury** and will survive for many decades

There is also an **expectation of good health** in today's society

Rehabilitation is effective in reducing the burden of disability and in enhancing opportunities for people with disabilities



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Ethics

It deals with two aspects:

- **human rights** as a societal approach (macro level)
- an **ethical** approach of **practicing medicine** (micro level)

Human rights

- increasing role in the **struggle to improve health**
- important **implications for rehabilitation** practitioners and researchers



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Effects of lack of rehabilitation

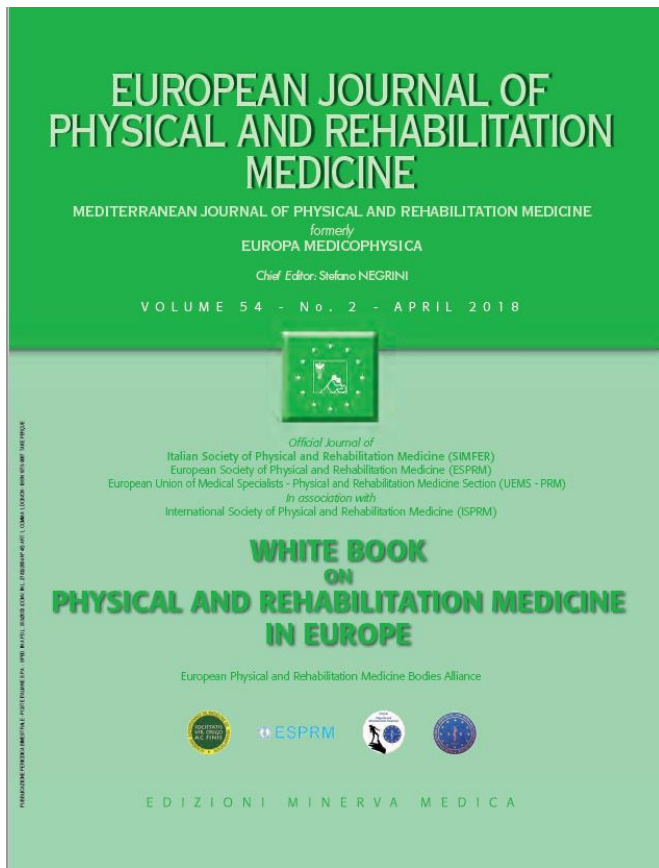
Money spent on rehabilitation is recovered with five to nine-fold savings and rehabilitation is effective in all phases of health conditions

Specialized rehabilitation (as delivered by PRM services) is highly cost-efficient for all **neurological conditions**

The lives of **people with persisting disabilities and their families** can be enhanced by rehabilitation, but, more importantly, the consequence of them not having rehabilitation may be to reduce independent functioning and quality of life

In the absence of rehabilitation **complications and loss of function** may occur and discharge may be delayed



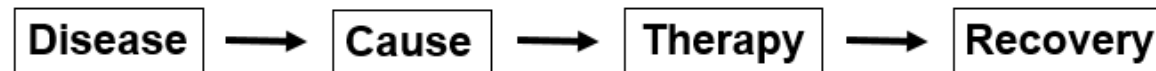


BACKGROUND OF PHYSICAL AND REHABILITATION MEDICINE

A primary medical specialty: the fundamentals of PRM

Person/functioning versus disease oriented

Traditionally: **organ-based approach** led to the classical "biomedical model" of treatment, where the search for etiology and pathoanatomy/physiology of a disease is considered the way to develop a good therapy, eradicate the cause of illness and cure the patient



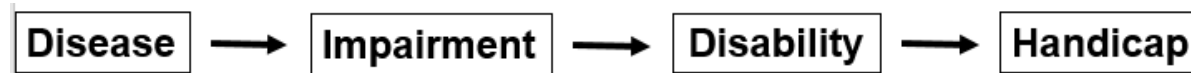
The focus of PRM from the start has been the achievement of the **best possible "functioning" in a long-term health condition**

The classical biomedical model was not applicable to PRM



Person/functioning versus disease oriented

A breakthrough came through the International **Classification of Impairments, Disabilities and Handicaps (ICIDH)**



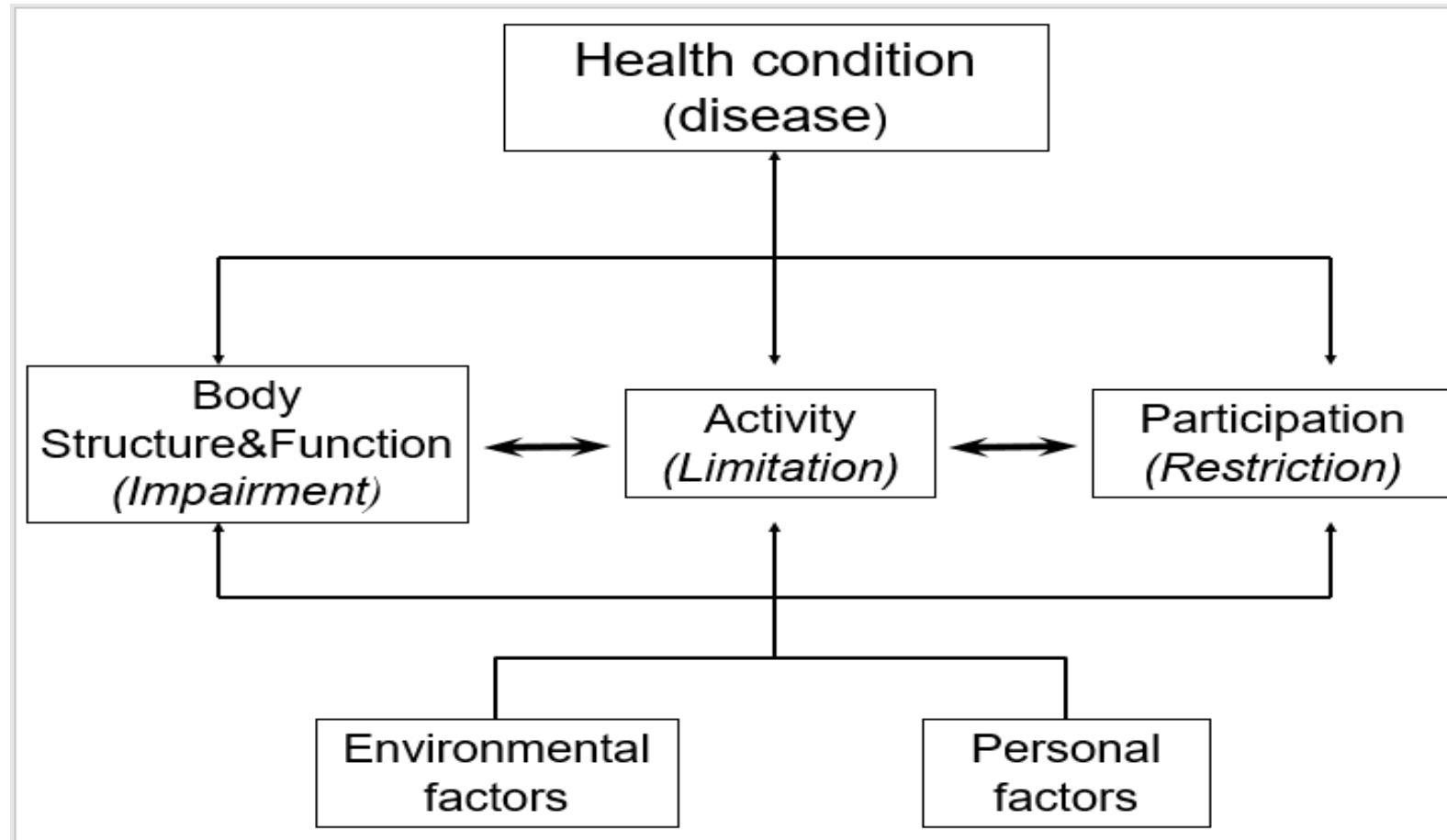
Following this, with the **International Classification of Functioning, Disability and Health (ICF)**: the "bio-psycho-social model" of treatment was developed



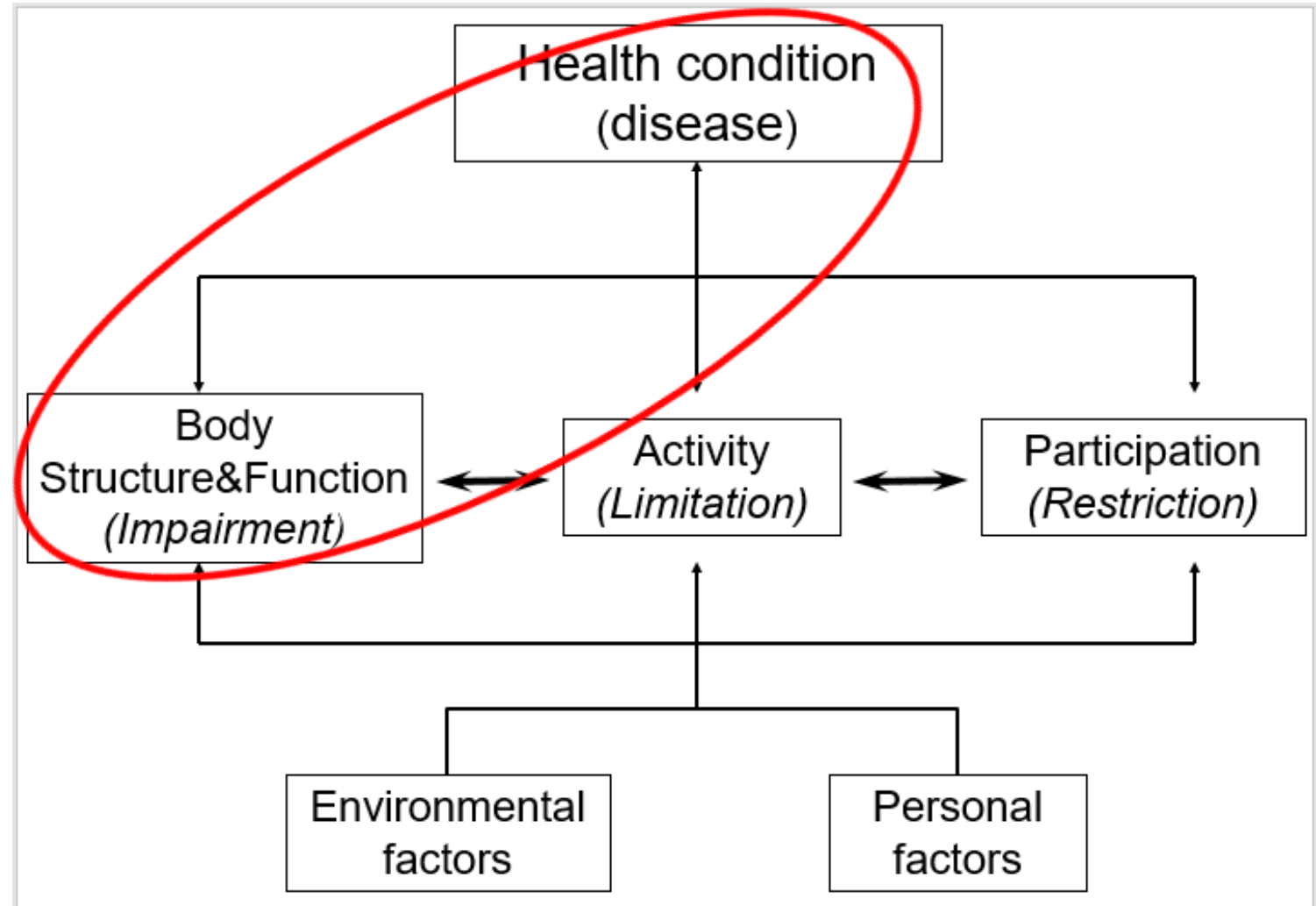
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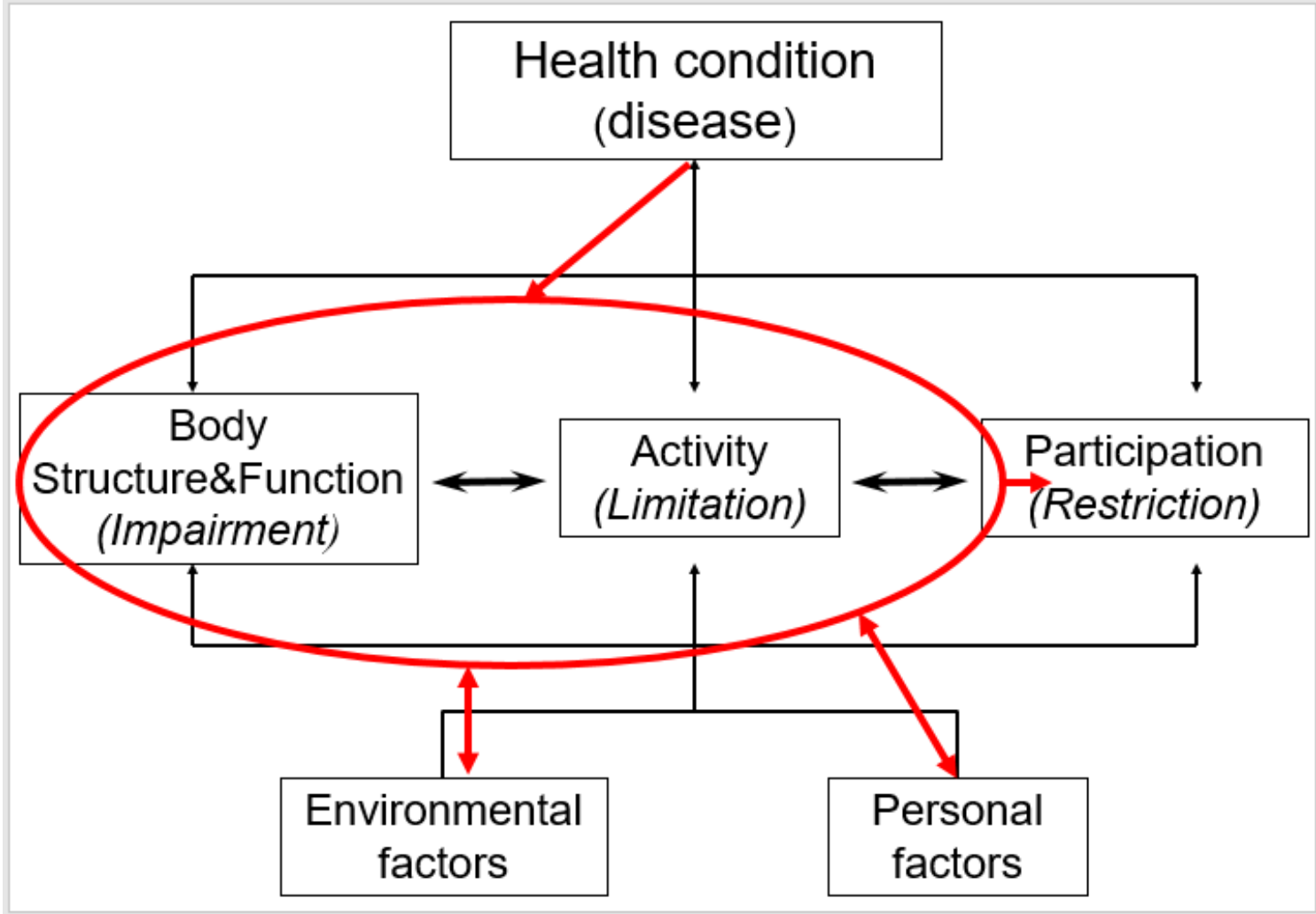
International Classification of Functioning, Disability and Health (ICF)



Organ-based
specialty



Functioning-based specialty



3. PRM a primary medical specialty

	Classical medicine	PRM specialty
Overall approach	Disease oriented	Person/functioning oriented (holism)
Diagnosis and prognosis	Medical	Functional and medical
Treatments	One modality at a time	Multimodal
Morbidities	Single	Multiple
Professional approach	Individual	Multi-professional team



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Characteristics in PRM practice

PRM today has

- transversal knowledge (**person** oriented)
- vertical application (**disease** oriented)

The two possible extremes

- the "**general PRM physician**" – in acute wards and post-acute inpatients practice in general PRM wards
- the "**specialized PRM physician**": in patients with specific diseases (in tertiary PRM wards, research and university)

Among these two extremes, all possibilities exist in PRM practice today



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PRM medical diagnostic responsibility

Typically when the patient's **impairment is mild** the PRM physician is the first health professional to see the patient and arrive at the diagnosis

In other clinical situations, typically in **post-acute wards**, PRM physicians are called in after the intervention of other specialists

- to **check and confirm** the patient's primary medical diagnosis
- to **identify any comorbidities** and already known impairments and activity limitation

Patient **followup in the medium and long-term** sometimes allows a refining of the medical diagnosis, when the course of the condition does not follow its usual expected pattern



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Specific PRM responsibilities

Apart from the general medical diagnosis, the PRM physician is specifically responsible for

- the **functional assessment** of patients
- identifying the **impairments and activity limitations**
- setting the **goals** of the PRM program
- elicit the meaning of an illness or a disability to an **individual patient**, the impact on their sense of personal identity and the resulting emotional reaction



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Multi-professional team lead by PRM physician

PRM physicians provide treatments in two different ways:

- personally
- through teamwork: the achievement of successful rehabilitation requires **multiple health care professionals with a wide range of clinical skills and expertise**: this style of multi-professional teamwork differentiates PRM from many other specialties



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Team models

Multidisciplinary: utilizes the skills of individuals from different disciplines but each discipline still approaches the patient from his own perspective

Interdisciplinary: integrates the approach of different disciplines with a high level of collaboration and communication among the team professionals using an agreed and shared strategy; the leadership of the team remains in the hands of one PRM physician

Transdisciplinary: the boundaries of professionals' practice are blurred and any professional is capable of working in any particular team role

An interdisciplinary approach in the multi-professional team is the preferred pattern of team working, but other models can also be found in various rehabilitation settings



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Team and settings

PRM ward: all professionals work together in the same facility under the responsibility of the PRM physician

In the **acute hospital with a central PRM department** the multi-professional PRM team acts on a consultant basis for all wards: consists of PRM physicians and rehabilitation professionals under the responsibility of the PRM physician.

Outpatients' settings must provide multi-professional teams working in a collaborative way with other disciplines, under the responsibility of the PRM physician. Teams may operate without the physical presence of one or several rehabilitation professionals, but always under the PRM physician's responsibility (liability).



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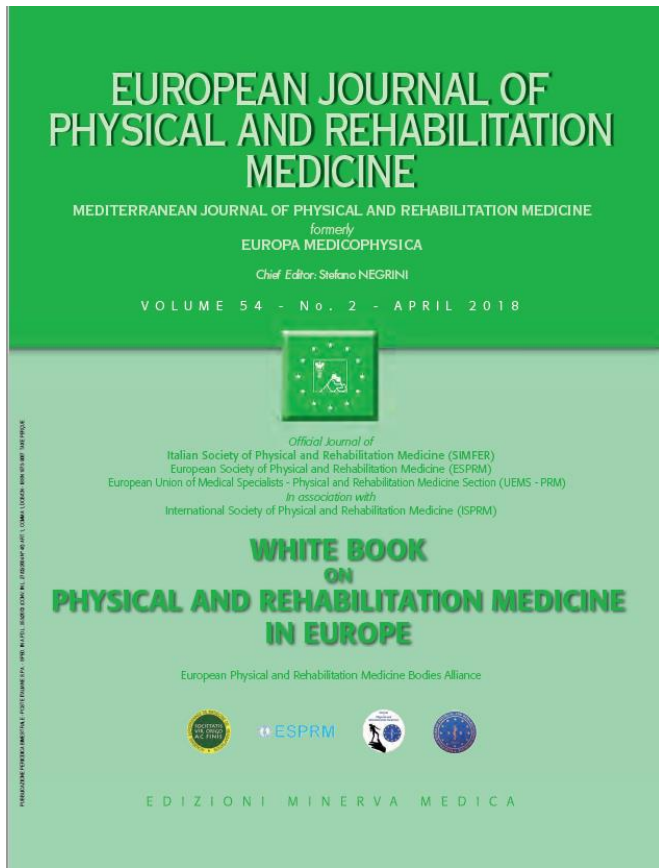
Successful rehabilitation team work

PRM physicians are **clinical managers** and should be good leaders

- **hierarchy:** there must be, in all health systems someone who is ultimately responsible for the patients: this is the physician, usually the PRM
- **time:** appropriate time must be devoted to team building, which may vary according to the setting - this is proper working time and not only improves the standards of clinical work, but really allows it to function
- **respect of roles and professions**
- the roles are different, with the **leadership** of the PRM physician
- **personal factors:** availability to change, the ability to collaborate, teamwork education, a balance of personal strength
- **environmental factors:** general attitudes in the working place plays a major role in facilitating or inhibiting team work; PRM physicians have a major role in facilitating the environmental attitude



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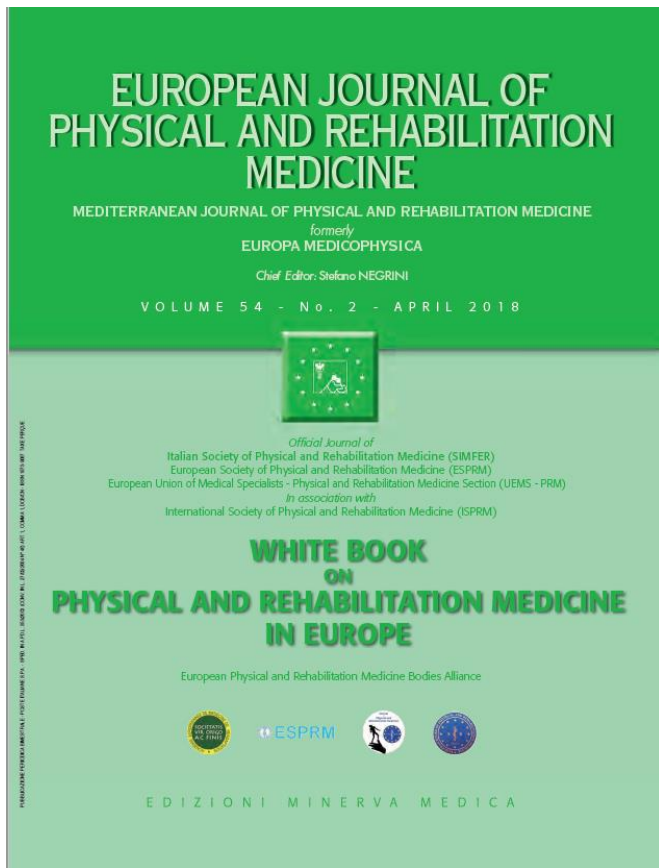


ORGANIZATION OF PHYSICAL AND REHABILITATION MEDICINE IN EUROPE

History of the specialty: where PRM comes from



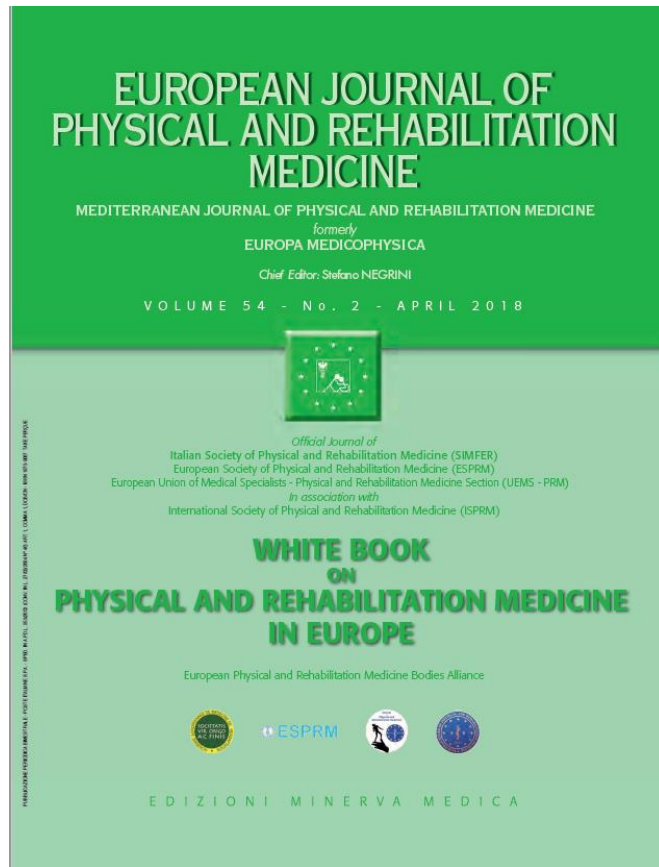
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ORGANIZATION OF PHYSICAL AND REHABILITATION MEDICINE IN EUROPE

The PRM organizations in Europe: structure and activities





PRACTICE OF PHYSICAL AND REHABILITATION MEDICINE IN EUROPE

Knowledge and skills of PRM physicians



Introduction

This chapter deals with the fundamentals of PRM from a **physiological perspective**, looking at the human mechanisms, **both physical and behavioral** which are at the base of PRM physicians' work

The **mechanisms** considered include

- **learning** processes
- **repair** processes
- **compensatory** processes
- **management** skills
- **communication** skills



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Prognosis in PRM

The prognosis is based on

- natural history of the original disease
- comorbidities
- personal and environmental factors (barriers and/or facilitators)

Highly specific to PRM is the problem of **communicating to patients the expectations** (prognosis) due to medical factors

- Reaching a consensus of the aims of rehabilitation agreed by patient/ proxy and medical team can be stressing



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Who should receive rehabilitation?

«**Compassionate**» model: rehabilitation is not denied to anybody

«**Disease-centered**» model: rehabilitation is not given, since the patient is believed able to recover spontaneously without any intervention as soon as the disease has been treated

Modern approach: rehabilitation should be given to patients

- able to improve
- in a specific period of time of the health condition
- with a start and an end of treatment
- followed by maintenance, also called postrehabilitation)



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Micro-level management skills

Patients' long-term management:

- long term care
- home adaptations
- long-term and post-rehabilitation care
- adapted physical activity
- continuous counselling
- move through a series of PRM facilities and services



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Meso-level management skills

Build an **effective team**

- good **communication** skills
- ability to **encourage** different members of the team to participate
- **suggest** aims and objectives of treatments
- **avoid** personal criticism and reach a majority consensus
- **Team meetings** to establish care team individualized plans
- Detect and arbitrate over **conflicts** and handle in a successful way



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Macro level management skills

Good **leadership adapted** to the current **societal** changes and way of thinking

Macroscopic view on **health provision and resource allocation**

Learn and understand the **political, economic, and social environment** of the system as well as an **ethical based decision making** process

Design of healthcare pathways for the provision of care of people with disabilities and develop **clinical guidelines** to recommend treatments across the continuum of care

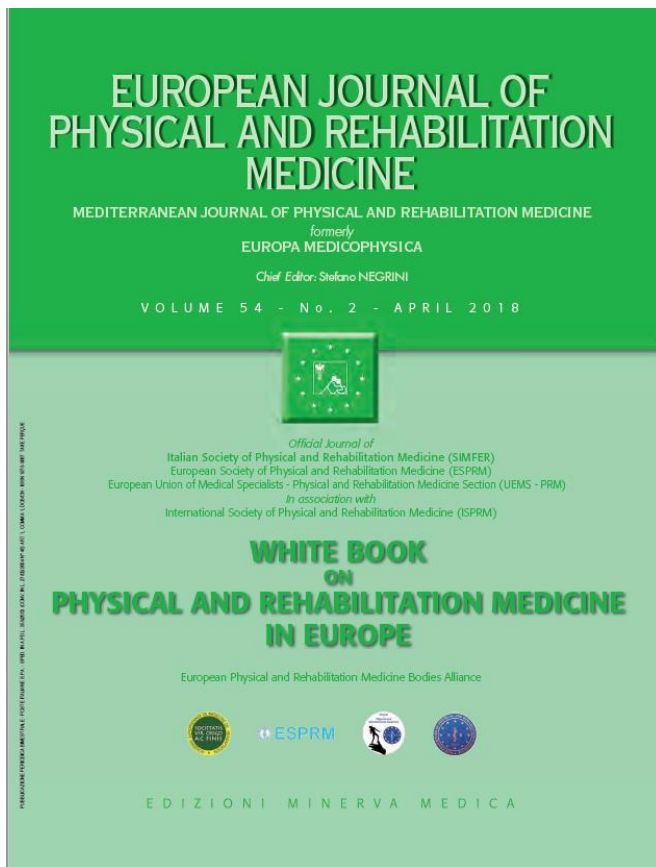


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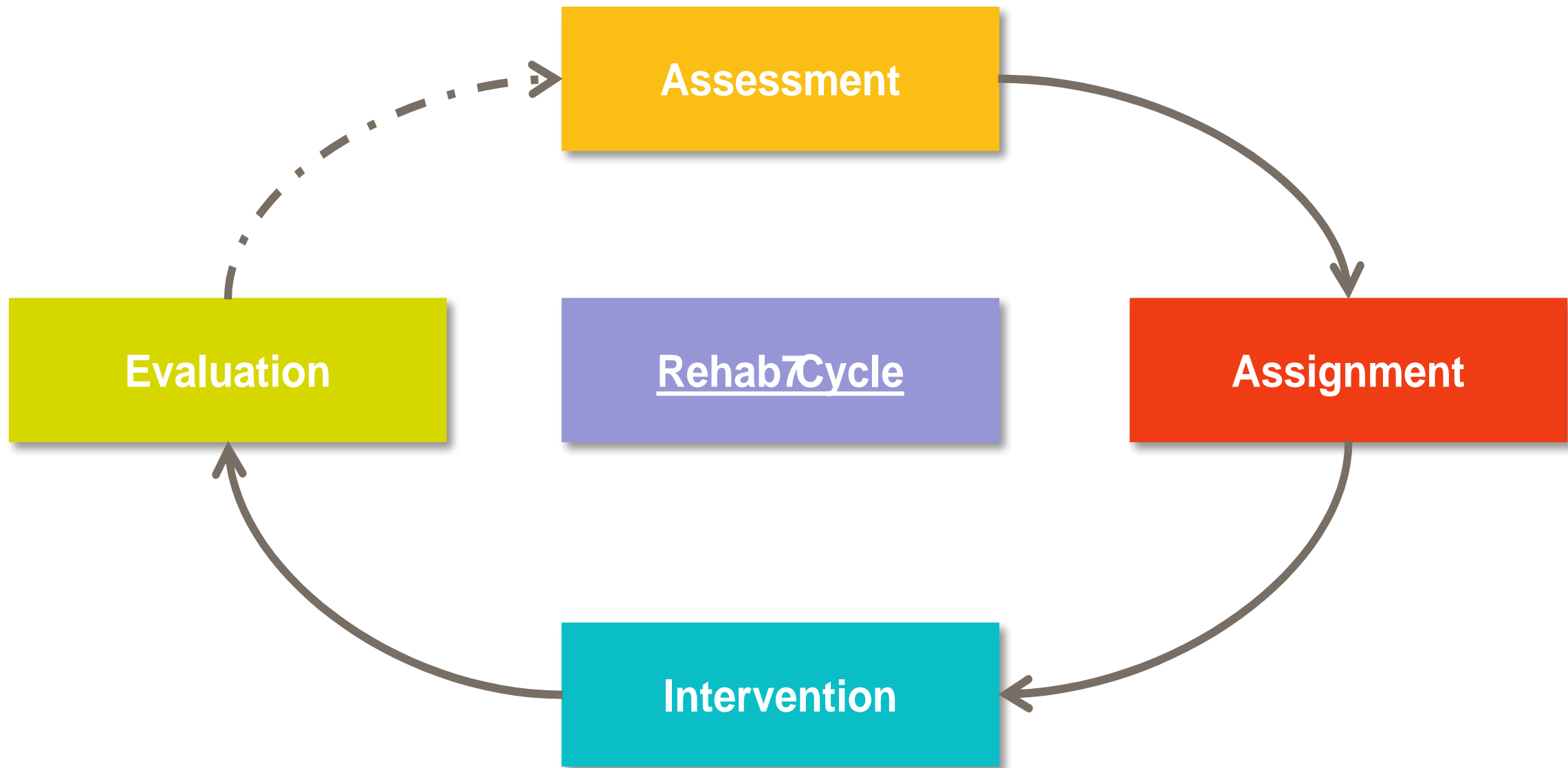
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The clinical field of competence: PRM in practice



Interventions in PRM

PRM uses a wide range of biomedical and technological interventions:

- **medical** interventions (*e.g.* medication and practical procedures)
- **physical** treatments and physiotherapy
- **occupational** therapy
- **speech and language** therapy and dysphagia management
- **neuropsychological** interventions, psychological interventions
- **nutritional** therapy
- **assistive technology**, prosthetics, orthotics, technical supports and aids
- patient **education** and PRM/rehabilitation nursing



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The competencies of the members of the team

PRM physicians: diagnosing, prognosis, medical assessment and treatment, setting-up treatment and rehabilitation plan, prescription of pharmacological and non-pharmacological treatments and assessment of response to these

Rehabilitation nurses: day-to-day care needs, tissue viability, continence problems, emotional support, education

Physiotherapists: assessment of posture and movement problems, administering physical treatments including exercise



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The competencies of the members of the team

Occupational therapists: assessing the impact of physical or cognitive problems on activities of daily living, return to work, education and/or leisure activities, strategies that can be used by the patient and his/her family, use of assistive technology and environmental adaptations

Speech and language therapists: assessing and treating cognitive, communication, orofacial motility problems and swallowing disorders

Clinical psychologists: assessment of cognitive, perceptual and emotional/ behavioral problems, strategies to manage these with the patient, his/her family and with other health professionals



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The competencies of the members of the team

Social workers: promoting participation, community reintegration and social support

Prosthetists and orthotists: provision of technologies

Bioengineers and rehabilitation engineers: regarding technologies and data collection

Dieticians: assessing and promoting adequate nutrition



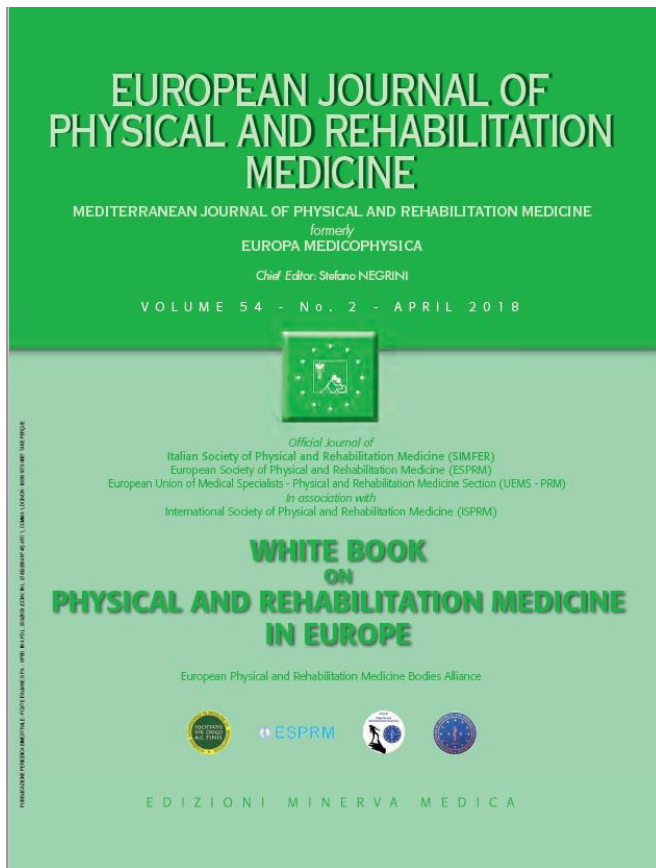
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PRACTICE OF PHYSICAL AND REHABILITATION MEDICINE IN EUROPE

The PRM specialty in the healthcare system and society

Coordinated referral systems (PRM as advisor and coordinator)

Level 5: highly specialized rehabilitation services (SCI, % TBI)

Level 4: Multi-professional rehabilitation services

Level 3: PRM, specialized PT, OT etc.

Level 2: primary care physicians, PT, OT, etc.

Level 1: families, peers, etc.

← PRM delivered services

PRM as trainer →

	A. Acute care	B. Post-acute care	C. Long-term-care
	Types of services	Types of services	Type of services
Tertiary level of health care	<p>A.1: Acute rehabilitation wards</p> <p>A.2: Mobile acute rehabilitation teams</p>	<p>B.1: In-patient post acute rehabilitation units</p>	<p>C.1: Intermittent in-patient rehabilitation services</p>
Secondary level of health care	<p>A.1: Acute rehabilitation wards</p> <p>A.2: Mobile acute rehabilitation teams</p>	<p>B.1: In-patient post acute rehabilitation units</p> <p>B.2: Out-patient post acute rehabilitation units</p> <p>B.3: Mono-professional post-acute services</p>	<p>C.1: Intermittent in-patient rehabilitation services</p>
Primary level of health care	--	<p>B.2: Out-patient post acute rehabilitation units</p> <p>B.3: Mono-professional post-acute services</p>	<p>C.2: Primary care rehabilitation centres</p> <p>C.3: Mono-professional long-term services</p> <p>C.4: Community Based Rehabilitation (CBR) services</p>



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WHO «Rehabilitation 2030: a call for action» recommendations on rehabilitation in health systems

1. rehabilitation services should be **integrated into health systems**
2. rehabilitation services should be integrated into and between **primary, secondary and tertiary levels** of health system
3. a multi-disciplinary (**multi-professional**) **rehabilitation workforce** should be available
4. both **community and hospital** rehabilitation services should be available
5. hospitals should include **specialized rehabilitation units for inpatients with complex needs**
6. **financial resources** should be allocated to rehabilitation services to implement and sustain the recommendations on service delivery
7. where **health insurance** exists, or is to become available, it should cover rehabilitation services

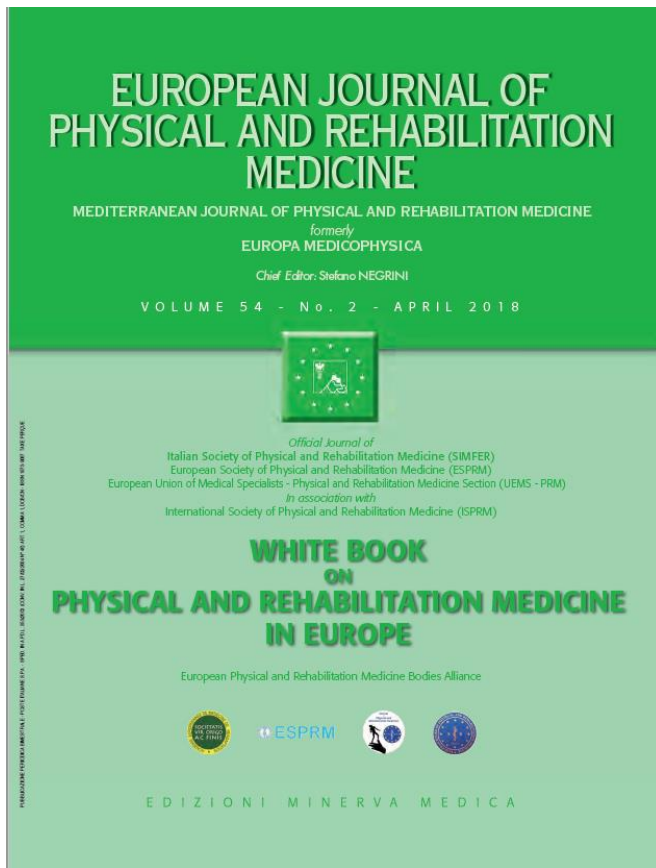


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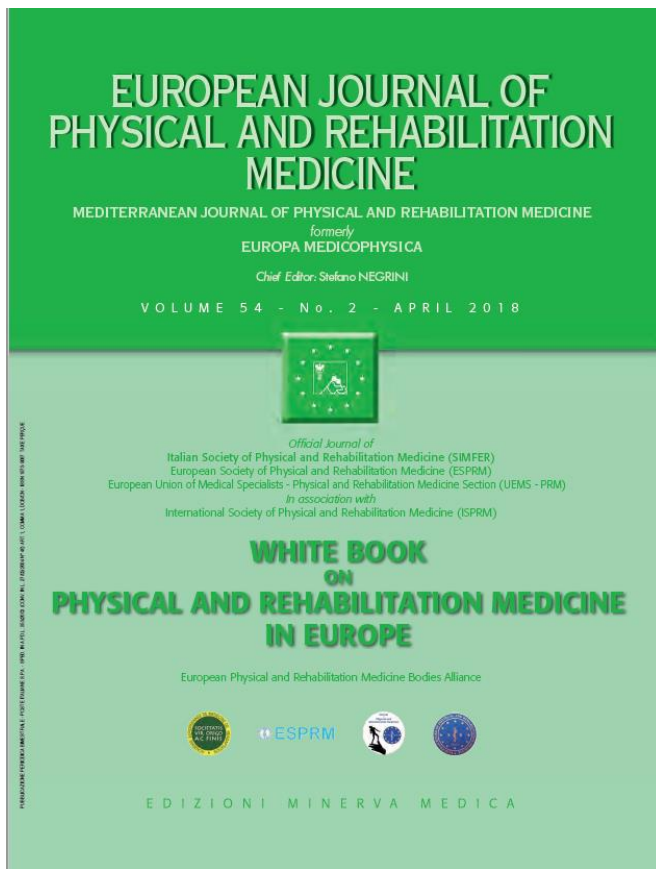
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Education and continuous professional development: shaping the future of PRM



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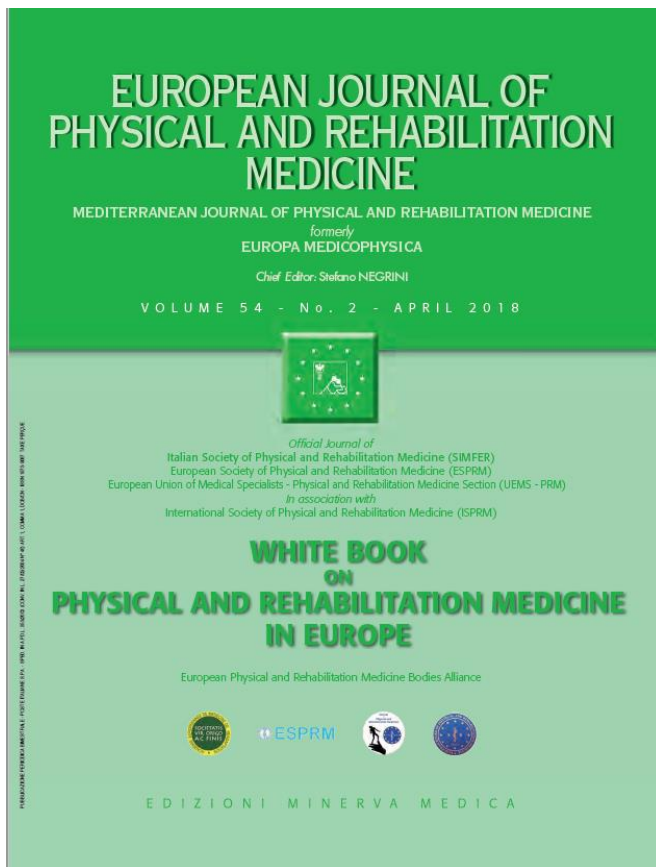
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Science and research in PRM: specificities and challenges



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THE WAY FORWARD

Challenges and perspectives for the future of PRM

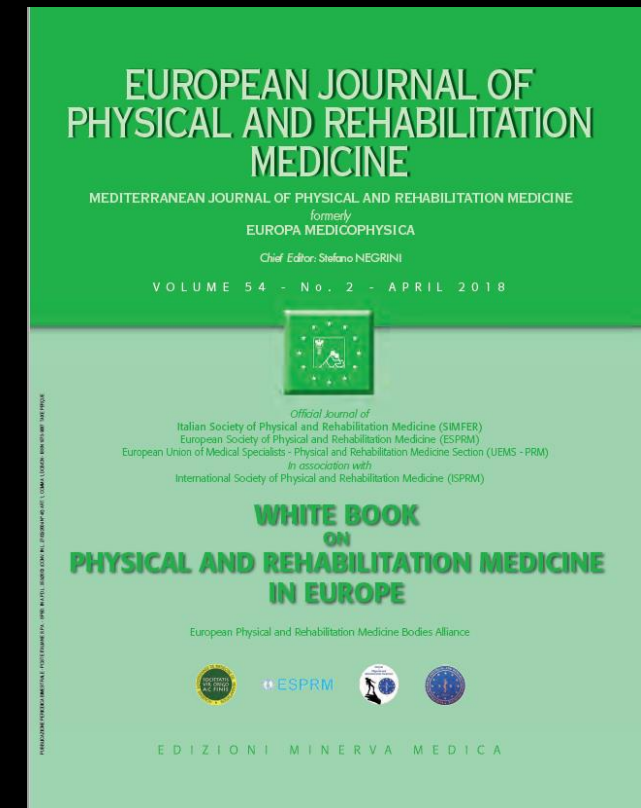
Contributors

For Chapter 11, the collective authorship name of **European PRM Bodies Alliance** includes

European **Academy** of Rehabilitation Medicine (EARM), European **Society** of Physical and Rehabilitation Medicine (ESPRM), European Union of Medical Specialists PRM **section** (UEMS-PRM section), European **College** of Physical and Rehabilitation Medicine (served by the UEMS-PRM Board).

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