

## SPECIAL REPORT

## PHYSICAL AND REHABILITATION MEDICINE IN EUROPE

Anthony B. Ward<sup>1</sup> and Christoph Gutenbrunner<sup>2</sup>

From the <sup>1</sup>North Staffordshire Rehabilitation Centre, Stoke on Trent, UK and <sup>2</sup>Clinic for Physical Medicine and Rehabilitation, Medical University, Hannover, Germany

**This article aims to describe the specialty of “physical and rehabilitation medicine” (PRM) in its European context and sets out to show the progress made over the last few years in its rapid development in Europe. It is expected to expand within the European Union (EU) following the accession of new member states and this article will discuss, in particular, the structure, role and the major issues facing the specialty in Europe.**

J Rehabil Med 2006; 38: 81–86

Correspondence address: Anthony B. Ward, President of the UEMS Section of Physical and Rehabilitation Medicine, North Staffordshire Rehabilitation Centre, The Haywood, High Lane, Burslem, Stoke on Trent, ST6 7AG, UK

Submitted August 26, 2005; accepted November 13, 2005

## DEFINITION

The official title of the specialty in Europe is “physical and rehabilitation medicine”, as defined under the European Directive in the *Journal of the European Union* (EU). It goes under a variety of names in different countries, reflecting different priorities (Table I).

## HISTORY OF THE SPECIALTY IN EUROPE

PRM has a fairly long history in continental Europe and is recognized in every country of the Union of European Medical Specialists (UEMS) (1). Its origins vary from country to country, but most progress and modernization has occurred since World War II. With the return of injured service personnel

Table I. *The various names of physical and rehabilitation medicine in Europe*

Rehabilitation medicine	Hungary, Ireland, Luxembourg, The Netherlands, Poland, Portugal, Sweden, UK
Physical and rehabilitation medicine	France, Germany, Denmark, Greece, Switzerland
Physical medicine and rehabilitation	Austria, Belgium, Croatia, Czech Republic, Denmark, Estonia, Finland, Greece, Italy, Latvia, Liechtenstein, Lithuania, Norway, Slovakia, Slovenia, Spain, Turkey

to civilian life and the need to maintain people in employment, rehabilitation units flourished as stand-alone facilities. Spinal cord injury rehabilitation was established in the UK after the pioneering work of Sir Ludwig Guttmann, and providing services to enable amputee rehabilitation was necessary. The spa tradition of southern and eastern Europe remains strong and is a part of physical medicine and rehabilitation. This has left a legacy of a number of treatment activities, such as thalassotherapy, balneotherapy, manual medicine, etc. The term “physical medicine” is still used in some countries, where it represents a different activity from rehabilitation medicine. Rehabilitation medicine in northern Europe tends to have passed many physical medicine activities to physiotherapy and concentrates on multi-professional and multi-disciplinary specialist rehabilitation in the fields of trauma, pain and disabling musculoskeletal and neurological conditions. This is the case in Scandinavia, the Netherlands and the British Isles.

The UEMS was created in 1958 as the only statutory medical body in the EU to have a responsibility for hospital-based specialties. Fig. 1 shows its structure within the European medical organizations. It is composed of specialist sections for each specialty in Europe and physical medicine was among the first specialties to be recognized as a distinct discipline. Over the years, the specialty changed its name to PRM to reflect a change in its activities and competence (see below). The European Board of PRM was created in 1981 as a part of the specialist Section. It has, in particular, developed its training and continuing professional development base. One cannot describe the specialty's place within each member state, but the aim of the Section and the specialty in Europe is to harmonize training and standards of service delivery, while at the same time recognizing the differences in specialty activity between countries.

## GENERAL STRUCTURE IN EUROPE

There are 3 PRM organizations operating at a European level. They are quite different in their aims, but have a good cross representation to ensure good communication. Representatives of the 3 bodies come together biannually to address important issues to promote the specialty and their views carry the authority of the whole of the specialty at a European level in discussions with policymakers and others.

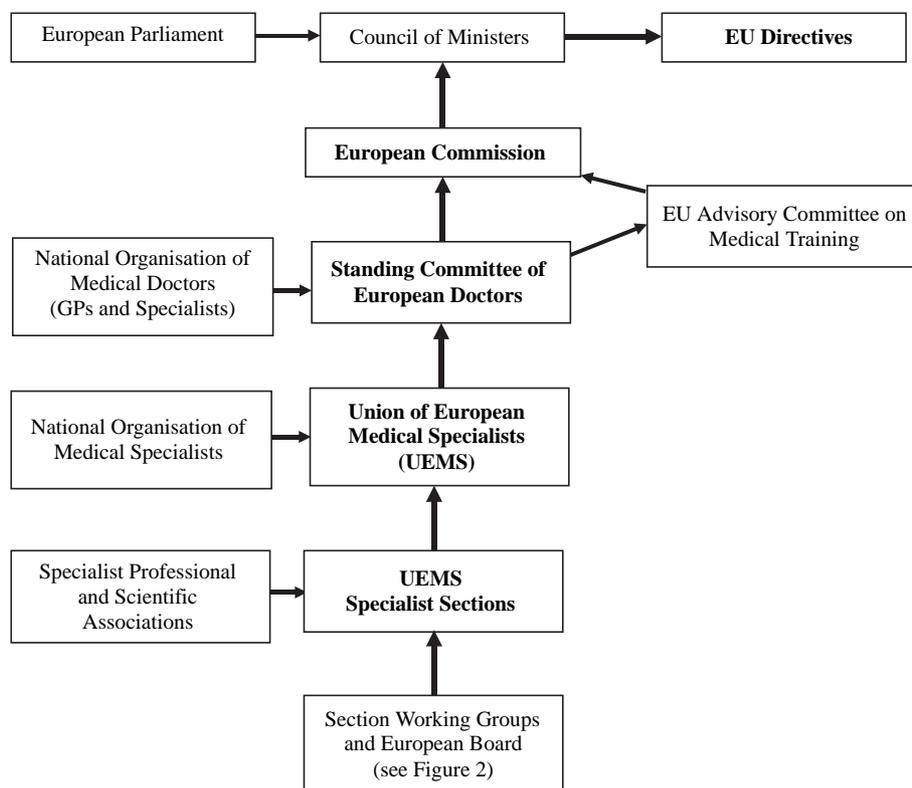


Fig. 1. European Union Medical Organization.

#### UEMS section of PRM

The specialty in Europe is organized through the PRM section of the UEMS. This is a statutory organ under the responsibility of the European Commissioner of Health and is the only official body recognized by the EU. The Section's aim is to promote the specialty in a professional capacity and to harmonize the specialty at a European level through specialist training and continuing professional development through revalidation. It works to develop clinical standards in practice and, to facilitate this, the specialty undertakes the required research to develop it further. To this end, it is accountable (as with other specialties) to the UEMS and has started to work closely with the European Commission and the Council of Europe. It has active liaison with many bodies, such as the Decade of Bone and Joint and the American Academy of PMR. It has 3 main committees under an Executive Committee, as listed below, and Fig. 2 demonstrates its tasks.

- Training and Education Committee – European Board of PRM
- Clinical Standards Committee
- Professional Affairs Committee

Following the accession of 10 new member states into the EU on May 1, 2004, there are now 28 full UEMS members, which also include Switzerland, Norway and Iceland. Romania, Croatia and Turkey are among 4 observer states. Within these countries, there are over 13,000 specialists and 2800 trainees. The UEMS therefore has a major task to act as a link between

all these countries' activities relevant at a European level. The number of specialists in physical and rehabilitation medicine across Europe varies considerably and this depends to a large extent on geography. Table II shows the demography of the specialty among the UEMS member states.

The general structure of PRM services across Europe is fairly similar despite the differences between healthcare systems. PRM is recognized as a core service in each of the 28 member states of the Greater European space and the newer associate members also adopt the same principles. Proposals for clinical standards are being put together during this process in the form of practice based round health-related groups.

#### TRAINING IN PRM

Specialist training covers a 4–5 year course in UEMS member states according to national variances. The route to start training is slightly different in each country, but, despite different entry points to the specialist training programme, the curriculum has considerable similarity across most of the continent. The European Board of PRM has the task of harmonizing specialist training across Europe and has taken on the following roles (2):

- European examination for recognition of specialist training;
- Continuing professional development and medical education for professional revalidation;
- Recognition of European trainer and training unit through site visits.

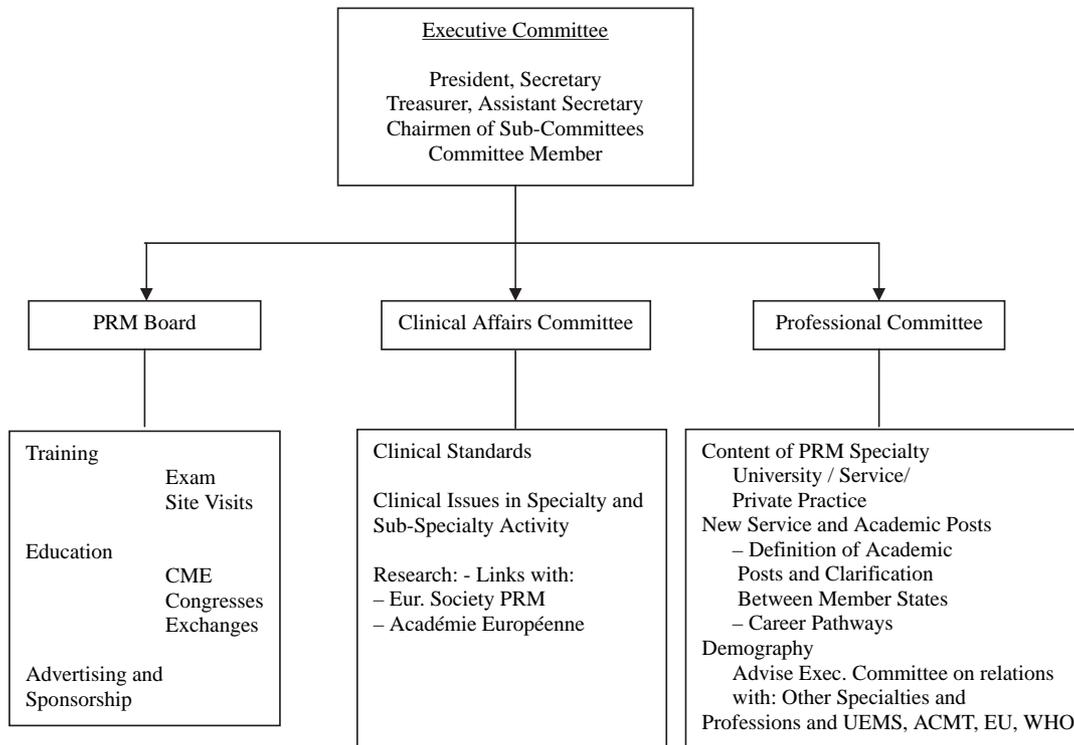


Fig. 2. Structure of the Union of European Medical Specialists (UEMS) Section of Physical and Rehabilitation Medicine (PRM). (ACMT = Advisory Committee on Medical Training.)

In the context of reciprocity of specialist qualification recognition throughout Europe, the Board aims to harmonize the content and eventually the standard of training across the continent to produce specialists who can work across European healthcare systems. In addition, it is important that prospective employers and national medical authorities have confidence in the training content and experience of the specialists working for them. All aspects of the Section and Board, including the specialty's curriculum, can be obtained through the Section's website (<http://www.euro-prm.org>).

#### European Society of PRM

Scientific research and education have traditionally been held in high regard and a European Federation of national scientific societies was established in 1968 to promote this activity at a European level. The Federation was responsible for hosting 3 yearly congresses, but the development of the specialty at a European level encouraged a European Society to be created in 2004 (thanks to the dedication of Professor Henk Stam of Erasmus University, Rotterdam). This will encourage research and education for both individual specialists and will allow national societies and associations to participate in an analogous way to that of the International Society of PRM. Biennial congresses are now held, for which the Society has developed the themes to reflect the direction of the specialty. The next congress will be held in Madrid on May 16–20, 2006 and the programme can be obtained from the website <http://www.ecprm2006.com>.

#### Académie Européenne de Médecine de Réadaptation

This body of around 50 senior academics has evolved into a think-tank on the specialty's development. It was created in 1968 and academics are invited on the basis of their contribution to the specialty and to research work in the field. It has a fairly even input from across Europe and produces work of value to the development of research in the specialty. It is currently in the process of producing a series of "state of the art" books, which include the mechanisms of plasticity, vocational rehabilitation, pain management and measurement in specialist rehabilitation.

#### DELIVERY PRINCIPLES OF REHABILITATION SERVICES

The specialty is in the process of developing pan-European standards and, rather than buy into established standards, such as Commission on Accreditation of Rehabilitation Facilities (CARF), it has started the process of producing its own to reflect the variation in practice across the continent. Various documents have been created to reflect the differing practice in UEMS member states and a pilot study will be undertaken over the next few months. Lack of space does not allow for a general description, but a number of examples of national standards have been studied. One of these, for instance, is the criteria for inpatient rehabilitation, which was produced by the British Society of Rehabilitation Medicine (3) and the main areas of initial interest centre around inpatient and outpatient work.

Table II. Union of European Physical and Rehabilitation Medicine (PRM) specialists demography

Country	Practising PRM specialists	PRM trainees (n)	PRM doctors per 100,000 pop. (n)	Population
Austria	134	85	1.85	7,300,000
Belgium	450	80	4.40	10,240,000
Croatia*	299	40	6.80	4,400,000
Cyprus	9	—	0.90	1,000,000
Czech Republic	483	130	4.67	10,300,000
Denmark	120	0	2.18	5,500,000
Estonia				
Finland	152	30	2.92	5,200,000
France	1760	125	2.97	61,300,000
Germany	1571	65	1.96	80,000,000
Greece	90	18	0.90	10,000,000
Hungary	140	27	1.38	10,117,000
Iceland*	10	3	3.72	270,000
Ireland	5	2	0.125	4,000,000
Italy	2200	350	3.85	59,000,000
Latvia	120	7	5.42	2,300,000
Lithuania				
Luxembourg	8	0	2.00	400,000
Malta				
The Netherlands	248	78	1.65	15,000,000
Norway*	92		2.14	4,300,000
Poland	900	120	2.30	39,000,000
Portugal	325	100	3.25	10,000,000
Romania*	690	164	3.14	22,000,000
Slovakia				
Slovenia	71	16	3.55	2,000,000
Spain	1500	292	3.85	39,000,000
Sweden	160	20	1.88	8,500,000
Switzerland*	267	50	3.76	7,100,000
Turkey*	850	200	1.41	60,000,000
UK	158	65	0.27	58,000,000

\*Not a member of EU.

Table III highlights the categories of patients, who would benefit from inpatient facilities.

Setting up quality systems across Europe is the eventual aim and this applies to both services and to individual practitioners. The agenda is the similar to that found elsewhere in the world and, in addition to clinical standards, revalidation, continuing professional development and setting out the field of competencies among services and among practising specialists are among the issues that are being addressed. In addition, Europe has a special problem due to the specialty's disparate background and publicizing its work in Europe's political arena is high on the agenda. A "star chamber" or Federation from the 3 groups is therefore developing to utilize the combined strength of the 3 organizations, which gives not only a powerful view of PRM in general, but demonstrates the view of the whole of the specialty.

## THE FUTURE

Although life seems to become increasingly tough for all medical specialties, PRM is a robust specialty with varied activities. This is also part of its weakness, as healthcare systems view it under different terms. The plan is, therefore, to describe the specialty at a European level for publication in all the member states and to work with health policy makers in ensuring the future of the specialty's role in delivering healthcare, but also at a European governmental role in making the specialty's expertise known for the development of health and social policy. Through the UEMS Section the specialty is thus discussing with the European Commission and the Council of Europe the mechanism for the latter and it is preparing to contribute to future proposals for European legislation.

Table III. Criteria for inpatient rehabilitation

- |   |  |
|---|--|
| a | Patients requiring 24-hour nursing and medical supervision for their rehabilitative needs.   |
| b | Patients with disabling conditions (mainly neurological and musculoskeletal disorders), who have the capacity for, require and who will benefit from rehabilitation, i.e. patients in whom the evidence shows that active intervention improves function, life satisfaction or prevents deterioration. |
| c | Severely disabled patients whose needs can only be met by a multi-professional team practising inter-disciplinary rehabilitation.  |
| d | Patients with complex needs, i.e. requiring more than 2 professionals working in a team.   |
| e | Some very severely disabled patients with little hope of improvement in personal functioning, but who require assessment and appropriate equipment and whose families require education for caring purposes.   |

The book, *Physical & Rehabilitation Medicine in Europe* (4) aims to ensure that PRM is seen as a European specialty with high-quality practitioners, using the best available evidence of good practice, taking into account any national differences, can deliver good standards of care. The book sets out the fields of competence of the specialty and of the specialists practising within the discipline. The training and skills of PRM specialists is given and the underlying principles of specialized rehabilitation are described in detail. This allows policymakers, health planners, medical and paramedical colleagues to identify how PRM works and how it can assist the process of allowing people with disabilities to participate fully in society. The specialty's initiative here is a monumental task, but the work on it has already started and agreement exists in the principles of this agenda for the specialty in Europe. *Physical & Rehabilitation Medicine in Europe* will be published in early 2006 and details of its availability will be on the Section's website (<http://www.euro-prm.org>). The essential elements are described in the Appendix to this paper.

#### REFERENCES

1. UEMS website: <http://www.uems.net> plus various policy documents contained therein.
2. Ward AB. Specialist training in Britain & Europe. *Arch Phys Med Rehabil* 2000; 81: 1242–1244.
3. Turner-Stokes L. Clinical governance in rehabilitation medicine – the state of the art in 2002. *Clin Rehabil* 2002; 16 (suppl 1): 1–60.
4. Gutenbrunner C, Ward AB. Physical and rehabilitation medicine in Europe. (in press). UEMS Section of Physical & Rehabilitation Medicine, Académie Européenne de la Médecine de Réadaptation & European Society of Physical & Rehabilitation Medicine.

#### APPENDIX: THE MAIN ISSUES OF PHYSICAL AND REHABILITATION MEDICINE IN EUROPE

(Gutenbrunner C, Ward AB, eds)

1. Physical and rehabilitation medicine (PRM) is the specialty that takes responsibility for the specialized care of people with physical disabilities.
2. This booklet sets out the field of competence of the specialty in Europe and of its specialists therein. PRM at a European level is defined as “an independent medical specialty concerned with the promotion of physical and cognitive functioning, activities (including behaviour), participation (including quality of life) and modifying personal and environmental factors. It is thus responsible for the prevention, diagnosis, treatments and rehabilitation management of people with disabling medical conditions and co-morbidity across all ages.”  
Specialists in PRM have a holistic approach to people with acute and chronic conditions and work in various facilities from acute care units to community settings. They use specific diagnostic assessment tools and carry out treatments including pharmacological, physical, technical, educational and vocational interventions. Because of their comprehensive training, they are best placed to be responsible for the activities of multi-professional teams in order to achieve optimal outcomes.
3. The strength of the specialty comes from the fact that specialists in the field are not restricted to one body system or disease and work to improve personal functioning, autonomy and participation in society of their patients, together with their families and carers.
4. There are two aspects to the specialty:
  - “Physical medicine” covers interventions aimed at improving physiological and mental functioning, using physiological mechanisms (such as reflexes), functional adaptation and neuroplasticity as well as physical and cognitive training.
  - “Rehabilitation medicine” aims to improve physical functioning and to enable people to participate actively in society. This is over and above the established World Health Organization (WHO) definition of rehabilitation, which is “an active process by which those disabled by injury or disease achieve full recovery, or, if full recovery is not possible, realize their optimal physical, mental and social potential and are integrated into their most appropriate environment.”
5. The document gives detail of The International Classification of Functioning and Health (ICF), as it is used in demonstrating the underlying principles through which PRM specialists practise.
6. Rehabilitation following injury or disease is a basic human right, which is supported by the United Nations, the EU and by anti-discrimination laws in some European states, which can be used to support people with disabilities and their families and assistants. PRM specialists are routinely involved in discussions on ethical and legal dilemmas during the care of their patients.
7. Tertiary prevention of disease and injury demonstrates the effectiveness of rehabilitation and real benefits ensue. The impact of not providing rehabilitation results in inadequate health, the complications of loss of functioning (e.g. immobility) and lost opportunities.
8. Teams of healthcare professionals working closely together deliver rehabilitation by good communication and by their own intrinsic skills and training. PRM doctors are, however, responsible for their patients' care in specialized PRM facilities and are the clinical leaders of the team. They also work closely with other medical disciplines and should lead these multi-disciplinary teams, when rehabilitation becomes the priority in patient care. Examples of this are shown in case histories, which demonstrate both the complexities of rehabilitation programmes for some patients and the way that rehabilitation teams can organize treatments tasks to achieve successful outcomes.
9. The document details the competencies of PRM specialists as well as their aptitudes, which are not specific to the specialty, which necessitate good communication skills and an insight to encourage patients to develop their own coping

skills. They are particularly trained in developing an individual rehabilitation plan for their patients and this forms the basis of the rehabilitation team's regular communication on patients' progress during rehabilitation. The plan should include the diagnosis, the presenting problems, the patient goals and the carer's and/or family's goals.

10. PRM services can be provided in a number of settings, ranging from specialized rehabilitation centres and departments in acute hospitals to outpatient and community settings and PRM doctors are involved in the decision-making process in patient care. Acute rehabilitation has also been developed specifically to deal with early rehabilitation

issues in acutely ill patients. There should be dedicated beds under the responsibility of a PRM specialist together with peripatetic rehabilitation staff providing advice and treatments to patients in intensive care units and acute wards of other medical disciplines.

11. The range of conditions, diagnostic evaluations and interventions are described to show that the specialty crosses body systems and both the evaluations and interventions deal with medical and functional issues.
12. Education and training are important aspects and the European bodies responsible for education, training and research are described.