Literature review

The *European Journal of Physical and Rehabilitation Medicine* in 2008:
A year in a paper

*L'European journal of physical and rehabilitation medicine en 2008 : un an en un article*

S. Negrini

*Italian Scientific Spine Institute (ISICO), Via Bellarmino 13/1, 20141 Milan, Italy*

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Abstract

**Background.** – In 2007, the European Society of Physical and Rehabilitation Medicine (ESPRM) established the European Physical and Rehabilitation Medicine Journal Network (EPRMJN) with a view to increase scientific knowledge among physical and rehabilitation medicine (PRM) specialists and to foster collaboration among the national, regional (multinational) and European PRM journals. In this connection, this paper gives the readers of national and regional, and European PRM journals a complete overview of the *European Journal of Physical and Rehabilitation Medicine* (EJPRM), the official ESPRM journal, and a review of the papers published in 2008.

**Methods.** – The evolution of the EJPRM in the last five years was analyzed, and the papers published in 2008 were systematically reviewed and classified by content and discussed.

**Results.** – The EJPRM is listed in PubMed and Current Contents; at now the unofficial 2008 Impact Factor is 1.14, like the Impact Factor, also the independent SCImago Journal Rate and Cites per Doc (two years) have increased steadily since 2005. The EJPRM published 72 papers in 2008, with a well balanced coverage of different rehabilitation topics. The rejection rate is around 40%; the review and publication times are 1.2 and 10.0 months, respectively. The published papers are presented here by topic, highlighting multi-journal initiatives (such as the EPRMJN and the *Euro-American Focus* with the *American Journal of PRM*), monographic Special Sections, systematic Cochrane PRM reviews, original papers and case reports, and other contents including the Internet Bookshelf.

**Conclusion.** – This paper represents the start of the EPRMJN collaborative efforts to increase scientific knowledge among PRM specialists in Europe, independently of the language in which papers are published.

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Keywords: Journal; Physical and rehabilitation medicine; Contents

Résumé


**Méthodes.** – L’évolution de l’EJPRM durant ces cinq dernières années a été analysée et les articles publiés en 2008 ont été systématiquement revus, classés par contenu et commentés.

**Résultats.** – L’EJPRM est répertorié dans PubMed et Current Contents; l’Impact Factor officieux 2008 est actuellement 1,14, comme l’Impact Factor, l’indépendant SCImago Journal Rate and Cites per Doc (deux ans) a constamment augmenté depuis 2005. L’EJPRM a publié 72 articles en 2008, avec une couverture équilibrée des différents domaines de la rééducation. Le taux de rejet des articles est d’environ 40 % ; les délais d’analyse et de publication sont respectivement de 1,2 et de 10,0 mois. Les articles publiés sont présentés ici par domaines, mettant en évidence les initiatives entre journaux (comme celles de l’EPRMJN et l’*Action euro-américaine* avec l’*American Journal of PRM*), les sections dédiées aux monographie,
1. Introduction

In 2007, the European Society of Physical and Rehabilitation Medicine (ESPRM) established the European Physical and Rehabilitation Medicine Journal Network (EPRMJN) [66] with a view to increase scientific knowledge among PRM specialists and to foster collaboration among national, regional and European PRM journals. One of the main aims of the EPRMJN is to reach the widest readership possible for the papers published in the European journals, thus enhancing the visibility of European research among continental (but not only) readers and scientists, and to raise the general level of PRM research and knowledge in Europe.

In this connection, the aim of this paper is to give the readers of the national and regional journals of the EPRMJN a comprehensive overview of the papers published in 2008 in the European Journal of Physical and Rehabilitation Medicine (EJPRM), the official journal of the ESPRM. Similar papers, coming from the regional and national journals, will be published in the EJPRM each year starting from 2009.

2. Methods

The papers published in the EJPRM in 2008 were reviewed and compared with the publications of the past four years; classical descriptive statistics tools were applied. The papers were classified by content and are presented here to the readers.

3. Results

The EJPRM has been listed in PubMed since 2004 and in Current Contents since 2008; this means that in 2010 it will have its first official Impact Factor according to Italian Scientific Spine Institute (ISICO) rules. The present unofficial Impact Factor is 1.14 (Fig. 1). The 2007 SCImago Journal Rate and Cites per Doc (two years), that are bibliometric indexes developed by a group of independent researchers and easily retrievable (www.scimagojr.com) [62] are 0.081 and 1.51, respectively (Fig. 2).

The EJPRM published 72 papers in 2008. Table 1 illustrates the types of papers published: the number of reviews has declined since 2004, while original papers of various type increased. Generally speaking, the Journal maintains a balanced coverage of different rehabilitation topics (Table 2). A gradual shift in the geographic area of origin of the papers can be seen (Table 3).

The submission rate rose from an average of 3.1 papers per month in 2005 to 12.2 in 2008, while the rejection rate remained around 40% (the rejection time decreased from 4.6 to 1.2 months); in turn, the number of pages per year increased from 320 in 2004 to 478 in 2008. The review time (each paper is reviewed by one Assistant Editor and two reviewers, together with the Chief-Editor) decreased from 7.4 months in 2005 to the present 1.2 months and the publication time remains around 10 months.

4. 2008 Contents of the EJPRM

The year 2008 was an important year for the Journal: the former Latin name, Europa Medicophysica (Eura Medicophys in PubMed), was changed to the English title, EJPRM (Eur J Phys Rehabil Med in PubMed), while maintaining the other sub-title “Mediterranean Journal of Physical and Rehabilitation Medicine”. An editorial retraced this evolution, underlining the Journal’s new (and old) role in Europe as a clinical rehabilitation journal [49]. Two important collaborations were launched with other journals, European and American. The first, starting with this article, is entitled “European Web of Journals” proposed by Gerold Stucki and Alessandro Giustini on behalf of the ESPRM and led by the EJPRM in its role as official journal of the ESPRM [66]. The second is entitled...
Tables

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Types of papers published in the European Journal of Physical and Rehabilitation Medicine (formerly Europa Medicophysica) in the last five years.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008 (%)</td>
</tr>
<tr>
<td>Original research</td>
<td>35</td>
</tr>
<tr>
<td>RCT, metanalysis, Cochrane</td>
<td>17</td>
</tr>
<tr>
<td>Editorials</td>
<td>16</td>
</tr>
<tr>
<td>Case reports and narrative</td>
<td>13</td>
</tr>
<tr>
<td>Comments, letters and replies</td>
<td>12</td>
</tr>
<tr>
<td>Reviews, special articles and guidelines</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Classification by content of papers published in the European Journal of Physical and Rehabilitation Medicine (formerly Europa Medicophysica) in the last five years. Under the term General Rehabilitation Official European Documents, organizational documents and guidelines are included.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008 (%)</td>
</tr>
<tr>
<td>Neurological</td>
<td>36</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>25</td>
</tr>
<tr>
<td>General rehabilitation</td>
<td>16</td>
</tr>
<tr>
<td>Other clinical</td>
<td>9</td>
</tr>
<tr>
<td>Basic science</td>
<td>4</td>
</tr>
<tr>
<td>Others</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Region of origin of papers published in the European Journal of Physical and Rehabilitation Medicine (formerly Europa Medicophysica) in the last five years. The Mediterranean category includes all countries around the Mediterranean Sea, involving Europe, Africa and Asia. Europe and Outside Europe categories exclude Mediterranean countries.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2008 (%)</td>
</tr>
<tr>
<td>Mediterranean</td>
<td>51</td>
</tr>
<tr>
<td>Europe</td>
<td>22</td>
</tr>
<tr>
<td>Outside Europe</td>
<td>27</td>
</tr>
</tbody>
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“Euro-American Rehabilitation Focus”, which was started in collaboration with the American Journal of Physical Medicine and Rehabilitation (AJPMR) with the aim to understand how the New and Old World cultures shape evidence and give rise to clinical everyday reality on the opposite sides of the Atlantic [52]; in the June issue this began with a highly interesting series of commentaries by Melvin [45] and Haig [36] on the White Book on Physical and Rehabilitation Medicine (PRM) in Europe; under the auspices of the EJPRM, the AJPMR published four papers in June [51,53,33,3] that elucidated to American audiences the contents and meaning of the White Book, and presented the history of PRM specialty and the role of the European PRM Society and professional bodies.

5. Special sections and reviews

Special sections constitute a specific group of invited reviews (sometimes also with original articles) that cover individual topics the Editorial Board deems to be of high importance. They appear regularly throughout the year to give readers a systematic expert overview of these topics. A Special section was edited by Stucki and Cieza [65] about the World Health Organization’s International Classification of Functioning, Disability and Health (WHO-ICF), which lays a new foundation for our understanding of health, functioning, and disability. However, several challenges will need to be addressed during its implementation. This Special section comprehensively described the state of the art of its development [11], the present classification and measurement of functioning [67], and its usefulness in clinics [61] and research [68] today. Another Special section in June reported on a potentially important advancement in cerebral palsy rehabilitation, with the proposal of a new classification rehabilitation devised by the group headed by Adriano Ferrari et al., whose expertise in the field is widely known. The new classification is presented in part I [22], a validation is proposed in part II [12], and in part III the inter-observer reliability is discussed [57]. In September 2008, a debate started with a Special section on the “Protocollo di Minima per l’ictus” ([PMIC] Minimal Protocol for Stroke), which is a standardized, easy to use and comprehensive assessment tool for acute, post-acute and community-living stroke patients. The tool was designed by a specific National Project Group [41] in Italy in 2004. The PMIC was first proposed in a letter [24], methodologically presented [41], and then applied in two rehabilitation units [60] and in an inpatient rehabilitation setting [58]. Some reviews by renowned authors can also be invited; this year Weigl et al. [76] reported on the determinants of disability in chronic musculoskeletal health conditions from an ICF perspective.

6. The Cochrane corner

The Cochrane Collaboration, founded in 1993, produces and disseminates systematic reviews of healthcare interventions and promotes the search for evidence in the form of clinical trials and other studies of interventions. A systematic review identifies an intervention for a specific disease or other problem in healthcare, and determines whether or not this intervention works. To do this, authors locate, appraise and collate evidence from as many relevant scientific studies as possible. They summarize conclusions about effectiveness and provide a unique collation of the known evidence on a given topic, so that others can easily review the primary studies for any intervention. Cochrane systematic reviews differ from other types of review in that they adhere to a strict design in order to make them more comprehensive, thus minimizing the chance of bias and ensuring their reliability. The major product of the Collaboration is the Cochrane Database of Systematic Reviews, which is published quarterly as part of the Cochrane Library. Rehabilitation is considered by the Cochrane Collaboration as a cross-sectional topic dealing with different disciplines: in fact, there is no “Rehabilitation group” but only a “Field”. To facilitate interaction between the Cochrane Collaboration and the world of clinical rehabilitation, the EJPRM began a systematic search of Library publications that could be of interest for our specialty, first with a systematic review in 2007 [54], then with a systematic update [79,80,81].
We published two Cochrane reviews in 2008, and others are in the pipeline for 2009. Dumoulin and Hay-Smith [18] investigated pelvic floor muscle training versus no treatment for urinary incontinence in women and found 13 trials involving 714 women; however, only six trials (403 women) were entered in the data analysis. Overall, the review provides support for the widespread recommendation that pelvic floor muscle training be included in first-line conservative management programs for women with stress, urge or mixed urinary incontinence. Takken et al. [69] focused on exercise therapy in juvenile idiopathic arthritis and found three out of 16 studies that met their inclusion criteria (212 participants). They concluded that, overall, based on “silver-level” evidence there was no clinically important or statistically significant evidence that exercise therapy can improve functional ability, quality of life, aerobic capacity or pain. No short-term detrimental effects of exercise therapy were found in any study. Included and excluded studies both showed that exercise does not exacerbate arthritis. Although the short-term effects look promising, the long-term effect of exercise therapy remains unclear.

7. Original papers

7.1. Rehabilitation in neurological diseases

Stroke rehabilitation is a major area of interest for a rehabilitation journal and many papers dealt with this topic. Three randomized controlled trials (RCTs) in stroke patients were published. Yavuzer et al. [78] showed that Playstation EyeToy Games, when combined with a conventional stroke rehabilitation program, can potentially enhance upper extremity-related motor functioning in subacute stroke patients. Ferrante et al. [21] won the Europa Medicophysica-SIMFER 2007 Award for their study in post-acute stroke patients, which showed that rehabilitation including FES cycling was more effective in promoting muscle strength and motor recovery of the lower extremities than therapist-assisted rehabilitation alone. Tests on an larger number of patients are needed before FES cycling can be generally proposed. Eser et al. [20] demonstrated that balance training combined with a conventional rehabilitation program does not provide additional benefit in terms of lower extremity motor recovery, mobility and activity level. A multicenter cohort (prospective) study by Denti et al. [14] suggested that rehabilitation in elderly stroke patients can be effective for improving function and favorably affecting discharge destination. In fact, age per se appears to predict outcome to a lesser extent than other clinical covariates, such as functional and cognitive status at admission and social situation. Several studies analyzed gait in stroke patients. Oken and Yavuzer [55] found that, to better interpret quantitative gait data and to offer appropriate rehabilitation programs, clinicians should consider that spatio-temporal and kinematic asymmetry might vary according to age, motor recovery level and walking speed of hemiparetic patients after stroke. A paper from Nigeria by Hamzat and Kobiri [37] focused on walking with a cane: their findings indicate that post-stroke individuals who used a cane as a walking aid had poorer balance and less social participation than their age-matched counterparts who walked unaided. As balance improved, participation also improved in both groups, suggesting that prescription of a cane for post-stroke individuals should be carefully considered, especially if the goals of rehabilitation include restoration of balance functions and social participation. General topics on stroke rehabilitation were also considered. Bilge et al. [5] suggested that the remission of post-stroke depression is associated with improved functional recovery. Early diagnosis and effective treatment of depression will improve the rehabilitation outcome of stroke patients. Finally, Treger et al. [72] proposed a feasibility study of the Reo Therapy System, which was found to be appreciated by patients, but further research is necessary in order to identify the most efficient balance of Reo Therapy and traditional therapy methods.

Rehabilitation of various other neurological diseases was studied. Vinci and Gargiulo [75] looked at compliance with ankle-foot-orthoses (AFOs) in Charcot-Marie-Tooth (CMT) disease and found that compliance is poor: patients with CMT discard AFOs because the appliances attract attention to their disability, are not essential for their limited daily walking, and are uncomfortable; the authors suggest that prescription of AFOs be accompanied with psychological support and that more comfortable and cosmetically acceptable solutions for the problem of footdrop be sought. Zambito et al. [82] demonstrated that children with foot deformities and clinical evidence of occult spinal dysraphism should undergo neurophysiological assessment in order to obtain early diagnosis and to avoid ineffective foot surgery. Cattelani et al. [9] focused on traumatic brain injury (TBI) subjects and concluded that defective-type behavior—summarily termed as apathy—can explain the unsatisfying community integration of TBI subjects and best explains the similarities with subjects presenting with a higher intellectual disadvantage (mild intellectual disability patients). The multidisciplinary approach to the complex community integration process of TBI subjects might consider the high frequency of apathy as a primarily target of community integration management. Finally, Lokk [43] focused on Parkinson disease from the perspective of caregiver (CGs) strain, concluding that CGs bear strain and burden in many psychosocial and somatic domains, despite satisfactory general well-being independent of disease duration; the longer the disease duration, the more the impact on certain domains of CGs burden.

7.2. Rehabilitation in orthopedic diseases

Rehabilitation of the sequelae of joint surgery and amputation are frequent clinical situations. Psoni et al. [59] reported on ICF Core Sets for osteoarthritis as a useful tool in the follow-up of patients after joint arthroplasty, although more research is needed, mainly on data reliability and category definition; even though problems in the administration were encountered, the ICF Core Set permitted better focus on issues and aspects of patient’s everyday life usually not taken into account or not codified in the usual care assessment. Adunsky et al. [1] focused on the discharge hemoglobin values and
functional outcome of elderly hip fracture patients undergoing rehabilitation; they found that higher hemoglobin values at discharge were not associated with better postfracture function, as reflected by FIM scores, and that clinically reasonable low hemoglobin levels are not associated with adverse functional outcome of elderly hip fracture patients; so, actively correcting hemoglobin levels, per se, may not result in better functional outcomes in this population. Cook et al. [13] looked at the continental variations in preoperative and postoperative management of patients with anterior cruciate ligament (ACL) repair; over 600 (634) surgeons from six continents completed the survey; variations do exist across continents in the non-operative and postoperative/rehabilitative management of these patients; continental variations and disparate emphases such as activity level, age at injury, and bracing influenced treatment decision making, which could lead to variations in outcomes, costs, and appropriate care. Karanikas et al. [38] found that, after ACL reconstruction, motor task and muscle strength adaptations follow different time patterns, suggesting that a decrease in muscle strength capabilities can be tolerated up to a certain extent by patients during walking and submaximal running; however, when the decrease in muscle strength exceeds a certain threshold, the biological system, being flexible, changes its locomotion strategy. Erjavec et al. [19] found that the exercise stress test is a good predictor of prosthetic fitting in patients with transfemoral amputation; it also anticipates the possibility of cardiovascular complications during rehabilitation programs; combined with the six-minute walk test, the FIM, and age, it may be an important criterion to consider when deciding about the appropriateness of prosthetic fitting. Finally, in another paper on joint rehabilitation Sekir et al. [63] described a functional test battery for evaluating functionality, proprioception, and strength, which they found to be reliable in recreational athletes with functional ankle instability.

Chronic conditions in adults and the elderly, such as chronic low back pain (CLBP) and osteoporosis, are other major topics in rehabilitation. An RCT conducted by Limke et al. [42] evaluated the effects of one set versus two sets of resistance exercises in 100 outpatients with CLBP pain and leg pain and concluded that there were no added benefits for completing a second set of resistance exercises during therapy sessions. Bautz-Holter et al. [2] investigated in a cross-sectional content-validity study in a Norwegian population the ICF Core Set for LBP to determine whether it covered the patients’ problems; they concluded it captures the problems of LBP and adds important aspects to clinical practice in LBP, but that it needs further refinement in order to improve its clinical feasibility. Ordu Gokkaya et al. [56] found significant impaired pulmonary function, aerobic capacity and serious deconditioning for various reasons in osteoporosis patients; therefore, cardiopulmonary function testing should be included in the management of osteoporosis patients and ventilatory muscle training and aerobic exercises may offer a potential therapeutic adjunct to current therapies in this patient group.

Several papers focused on a sometimes neglected, but growingly important field for rehabilitation [48], that is, adolescent idiopathic scoliosis (AIS). Weiss and Goodall [77], in a systematic review, evaluated the treatment of AIS according to present evidence and concluded that there is some evidence supporting conservative treatment for AIS, while no substantial evidence was found in prospective controlled studies to support surgical intervention; in light of the unknown long-term effects of surgery, an RCT seems necessary; due to the presence of evidence supporting conservative treatments, conducting an RCT for conservative treatment options seems unethical, however, even if the evidence for conservative treatments is weak in number and length. Negrini et al. [50] won the Europa Medicophysica-SIMFER 2007 Award for a paper on rehabilitation of AIS: the results of exercises and bracing reported in a series of clinical studies showed that, with efficient management of data collection, a set of studies can be developed to determine the efficacy of clinical daily rehabilitation approaches. To conclude our overview of the spine during growth, a cross-sectional study by Giusti et al. [32] reported on the weight of school book bags in South Brazil. The study showed that, due to the higher income of the families of children attending private schools, the type of school equipment the children carried was more costly and heavier, and concluded that these data should be considered in educational campaigns.

7.3. Others

Bertoni et al. [4] reported that nutritional counseling seems to be ineffective and poorly applicable to disabled people, although further studies should be directed towards a treatment program associated with careful screening, motivation analysis, and follow-up in this patient population. Vanden Bossche et al. [73] found that the ischemia/reperfusion syndrome could be an important precipitating factor in the pathogenesis of heterotopic ossification, and that free radical scavengers had a significant inhibitory effect on its development in a rabbit model; the results of this experimental model can be an impetus for further research into the prevention of heterotopic bone formation in humans.

8. Case reports

Case reports can be very important for clinicians when special clinical situations or new rehabilitation approaches are presented. Since such papers hold particular interest for a clinical journal like ours, the EJPRM published eight case reports in 2008.

Zynnurodlu et al. [83] described a 51-year-old woman with adult respiratory distress syndrome [44] in whom heterotopic ossification developed after long-term sedation with neuromuscular blockade agents. Carda et al. [8] presented a case of deep vein thrombosis (DVT) and pulmonary embolism after an intrathecal buplofen bolus test. Sim and Seo [64] discussed an unusual case of primary lymphedema of the upper extremity in a healthy 28-year-old woman. A slight improvement in swelling was noted following complete decongestive therapy. Goulipian et al. [34] demonstrated that orthopedic shoes
improved gait disorders in a Friedreich’s ataxia patient. Pain decreased, walking distance increased, falls were less frequent, going out became possible, stability was better, speed, step length and cadence increased.

Lancioni et al. [40] reported on a successful extension of assessment and rehabilitation intervention through a learning setup in an adolescent with postcoma multiple disabilities. Bozzolini et al. [7] were involved in the case of a 41-year old patient paraplegic since the age eight years, and proved that home accessibility can be improved after having considered the patient’s requests and expectations, analyzed the patient’s house and the existing technical literature, and drawn up a specific program. Bertoni et al. [4] described the case of a female patient and showed that botulinum toxin type A could be a feasible option to treat painful localized contractures after total hip replacement that do not respond to standard treatments. Monticone and Giovanazzi [46] reported on the usefulness of a cognitive behavioral and rehabilitative approach to enhance long-lasting benefit after lumbar spinal stenosis and degenerative spondylolisthesis surgery in a 60-year-old woman.

9. Other contents

A very interesting discussion started in 2007 with a paper by Tesio et al. [71] about the usefulness and importance of Rasch analysis, with one reply by Granger [35], which has continued into this year with an important commentary by Bond [6], interestingly replied to by Tesio [70]. Since 2008, specific space has been given to narrative-based papers with the aim to enhance clinical understanding in our specialty [10]: the first described a special situation for a meeting between TBI patients and their previous physicians [23]. A number of interesting original letters were published: one by Munoz Lasa and Franchignoni [47] about the role of animal-assisted therapy in PRM, the other by Vinci [74] on the perplexities surrounding the use of the Charcot-Marie-Tooth Neuropathy Score in rehabilitation. A discussion was also raised by Di Lorenzo [15] on a paper by Di Monaco et al. [17], with an author’s reply [16]. We conclude with the sad news of the death last year of Prof. Haim Ring, past president of the International Society of PRM and founder of the Mediterranean Forum of PRM. Mr Ring was also an Associate Editor of the EJPRM [39].

9.1. Internet Bookshelf

In 2007, Internet Bookshelf made its first appearance. This now regular feature on tips and tools for Internet navigation from a rehabilitation perspective [28,26,30] was proposed by Dr. Giglia, a librarian with substantial expertise on Open Access and Internet resources. In 2008, she reported on: biomedical gateways and virtual reference desks as sources of trustworthy health information on Web sites and as guides to the Internet galaxy [25]; Google and its power and usefulness for researchers and rehabilitation specialists [31]; on the “reference room” of the Internet, a virtual library without walls where one can find medical encyclopedias, dictionaries, atlases, e-books, images, with a look at the copyright law [27]; PEDro, the well-known, unknown. Physiotherapy Evidence Database, with some useful skills to make search more effective [29].

10. Conclusion

This paper represents the start of the EPRMJN collaboration effort to increase scientific knowledge among PRM specialists in Europe, independently of the language in which papers are published. In the next future, the EPRMJN will involve also the national Journals. In 2009, the EJPRM is planning a survey of the existing national Journals in Europe, to involve them in the EPRMJN, but it is also planning collaborations with other continental Journal in America and Asia. We look forward that these collaborations will strengthen the PRM research and clinical world, and drive it to better results than before; we aim to follow at best (but also co-drive) the developments coming from the International Societies, such as the ESPRM and the International Society of PRM (ISPRM), and the continuous growth of our Specialty.

References


