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DESCRIPTION

PM&R is the official scientific journal of the American Academy of Physical Medicine and Rehabilitation (AAPM&R). It is a monthly, peer reviewed, scholarly publication. It aims to be an internationally leading journal that advances education and impacts the specialty of physical medicine and rehabilitation through the timely delivery of clinically relevant and evidence-based research and review information. Contributions from all parts of the world and from all types of professions in rehabilitation are therefore encouraged.

Topics covered include acute and chronic musculoskeletal disorders and pain, neurologic conditions involving the central and peripheral nervous systems, rehabilitation of impairments associated with disabilities in adults and children, and neurophysiology and electrodiagnosis. PM&R emphasizes principles of injury, function, and rehabilitation, and is designed to be relevant to practitioners and researchers in a variety of medical and surgical specialties and rehabilitation disciplines including allied health.

The content of PM&R includes articles that are contemporary and important to both research and clinical practice. The various sections of the journal include original research such as clinical trials, outcomes studies, and clinically relevant translational science; reviews (narrative and analytical); case presentations; point/counterpoint debates; ethical/legal topics; practice management updates; statistical themes; editorial and opinion pieces; images; clinical pearls; emerging issues; and letters to the editor.

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ABSTRACTING AND INDEXING

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GUIDE FOR AUTHORS

INTRODUCTION

*PM&R* is the official scientific journal of the American Academy of Physical Medicine and Rehabilitation (AAPM&R). It is a monthly, peer reviewed, scholarly publication. It aims to be an internationally leading journal that advances education and impacts the specialty of physical medicine and rehabilitation through the timely delivery of clinically relevant and evidence-based research and review information. Contributions from all parts of the world and from all types of professions in rehabilitation are therefore encouraged.

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SUBMISSION CATEGORIES

The corresponding author will be required to identify for which category the manuscript is submitted. Each category has different submission requirements in terms of style, length, and format. Please review the specific submission category sections for detailed submission information. Manuscripts that do not adhere to the following instructions may be returned to the corresponding author for technical revision before undergoing peer review.

Unsolicited Submissions That Will be Considered for Peer Review:

**Original Research**

Basic science and clinical research including observational prospective or retrospective cohort studies, randomized and nonrandomized clinical trials, cost-effectiveness studies and clinically relevant translational science. The manuscript text should be limited to 5,000 words excluding references, tables and figures, which should be used when necessary to extend the understanding of the text. All original research manuscripts must be accompanied by a structured abstract of no more than 300 words that is described in detail below (see Manuscript Preparation). The text should include the following sections: introduction, methods (subjects, procedures, outcome measures, etc.), results (including reporting of statistical analysis with text as well as supplemental tables and figures), discussion (including interpretation of findings, clinical impact and applicability of results, and strengths and limitations of the study) and conclusion.

**Reviews**

There are 2 main review article types: *Narrative and Analytical*. Each can be written in a *focused or comprehensive* format.

**Focused**: limited to 3,500 words excluding references (generally up to 50), and tables and figures (generally up to 4)

**Comprehensive**: limited to 7,500 words, excluding references, tables, and figures

**A Narrative Review Includes:**
- Non-structured abstract (maximum 250 words)
- Introduction (including a statement of purpose)
- Literature review, including search strategy with inclusion and exclusion criteria
- Discussion, including summary of published evidence
- Conclusion, including clinical applicability
- Tables and figures useful to present data

**An Analytical Review Includes:**
- Structured abstract
- Objective: state the primary objective of the review article.
- Type: see subtypes below
- Literature Survey: include data sources, constraints, and time parameters
- Methodology: summarize data extraction and analysis
- Synthesis: describe the main results
- Conclusions: state primary conclusion(s) and clinical applicability
  - Introduction (including a statement of purpose)
  - Methodology (including detailed description of literature search strategy and data abstraction)
  - Discussion
    - In depth assessment of published literature ("evidence")
    - Emphasis on appraisal of quality, synthesis of information, and analysis/comparison of results or conclusions (based on subtype)
  - Conclusion stating a summary of the review including clinical applicability
  - Subject matter that is contemporary or cutting edge

Subtypes of Analytical Reviews include Systematic Reviews and Meta-Analyses.

**Systematic Review:** Uses explicit methods to search, appraise, and synthesize research evidence in order to address a specific study question. The guidelines provided by the Cochrane Collaboration or the NHS Centre for Reviews and Dissemination are often followed, particularly grading of strength (quality) of evidence. The process is transparent in the reporting of its methods to facilitate others to replicate the process. Systematic reviews seek to draw together all available knowledge on a topic area, requiring an exhaustive, comprehensive literature search. The analysis leads to a determination of what is known and unknown about the study question, and leads to recommendations for future research.

**Meta-Analysis:** A technique that statistically combines the results of quantitative studies to provide a more precise effect of the results. A good systematic review is essential to a meta-analysis of the literature. For a meta-analysis to be valid requires all included studies to be sufficiently similar; this includes characteristics such as the study population, intervention, and comparison(s) being made. Most importantly, it requires that the same measure or outcome be assessed in the same way and at the same time intervals.

**Mixed studies review/mixed methods:** Any combination of methods where at least one of the components is usually a systematic review. It most frequently refers to the bringing together of a qualitative review (conceptual) and a quantitative analysis (practical). Such reviews attempt to bring the evidence of "what works" together with the theoretical of "how and why does it work" to start to address the more complex issue of "what works under which circumstances." This review type seeks correlations between practical and theoretical and uses gap analysis to identify aspects absent in the literature. Mixed methods reviews provide a potentially more complete picture of the research landscape in a specific topic area.


**Case Presentations**
A case study or case series reporting on a new or unusual syndrome or medical condition, new diagnostic method, or highlight of an important clinical complication of a common condition. The manuscript should be limited to 1,500 words excluding references, tables and figures. The text should include the following sections: introduction, presentation of the case report or series, and discussion. For Case Reports, a brief, unstructured abstract (not to exceed 100 words) should be included. References should be limited to 10 (ten) and at least one figure should be included, but a maximum of two figures allowed.

It is a requirement that formal, written permission be secured from the patient(s)/subject(s) of case reports or case series before publication. The purpose of this "informed permission" is to educate the subjects of such case reports regarding the nature of disseminating their personal health information, ensuring maximal deidentification and anonymity, and allowing the subject(s) the option of declining such release of information.
You are required to engage in a reasonable effort to locate the subject(s) of your case report and discuss this informed permission form with him/her/them directly. Once this form is completed and permission granted (by signature), you are advised to safely retain this form as part of your records.

**To maintain privacy, do not submit patient permission forms to the Editorial Office.** It is understood that situations will arise in which it is not possible to obtain informed permission from a subject, ie, the subject is deceased, the subject has moved and is not trackable, the subject has a disability that prevents adequate comprehension of the informed permission request. If a legal surrogate or guardian (family member or otherwise) is identified, then this person is allowed to supply the informed permission. If after due diligence, neither the subject or legal surrogate, guardian, or family member is found or identified, then the case report may be submitted without obtaining informed permission. The cover letter accompanying your manuscript submission should stipulate whether or not informed permission was obtained.

If your institution already requires completion of a similar Patient Consent form, we request that a copy of the blank form be sent to us so that we can ensure it is a suitable substitute.

**Clinical Trials**

Effective January 1, 2016, all manuscripts reporting clinical trials must be registered before submission. For trials that are underway and are already enrolling patients, registration can be retrospective. This is an interim step that will end January 1, 2017. At that time, *PM&R* will only consider clinical trials that have been registered before the first patient is enrolled.

A clinical trial is defined as any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes (http://www.who.int/ictrp/en). Studies of human subjects with prospective assignment of an intervention by the investigators, regardless of the size of the trial or method of assignment, must be registered. Cohort and retrospective studies without an intervention do not require registration, and neither do observational studies of clinical care (PM R 2015:1203-1204). Indicate where the trial was registered and the trial number in the Methods section of the text and Abstract.

**In Brief**

**Clinical Pearls**

A brief vignette describing a new or unique diagnostic or treatment method for a specific medical condition or category that would have relevance to the average physiatrist or practitioner in another rehabilitation discipline. This should include a short review of the history of previous methods, a description of the new method, and justification for the basis of the new approach. The Clinical Pearls do not have to be presented with a specific case. These manuscripts should be no more than 1,000 words (excluding references) with no more than two figures or tables.

**Emerging Issues**

A short technical report of a new or emerging technology, treatment, or device, with relevance to the field of physical medicine and rehabilitation. These manuscripts should be no longer than 750 words (excluding references) with a limit of one figure or table.

**Images**

A column presenting images (eg, radiographs, CT, MRI, electrodiagnostic tracings, pathology, physical examination findings) that are unique, interesting, pertinent, and relevant to the understanding of health and disease in the field of physical medicine and rehabilitation. All images should be accompanied by a short description of the image and relevant relationship to clinical care or research science of no more than 500 words (excluding references) with references limited to 5 (five).

**Letters**

Letters to the editor are encouraged and will be considered for publication at the Editor-in-Chief’s discretion. All letters should be brief (no more than 750 words) and must relate to content published in *PM&R*. Letters should not reference any unpublished literature and references are limited to no more than 5 (five). Letters are also subject to editorial modification.

**Articles Solicited by Editor-in-Chief and Senior Editors Only:**

**Point-Counterpoint**
A debate format of a specific question, usually based on a controversial therapeutic intervention, but could include a theoretical dilemma, diagnostic uncertainty, or other topic in physical medicine and rehabilitation, through which two parties with legitimate opposing perspectives present arguments to support their viewpoints. This column allows more editorial freedom than a critical review, but the basis of these viewpoints should include scientifically sound arguments supported by available medical evidence as well as personal experience and perspective. Each of the two portions of the manuscript should be no greater than 1,500 words (excluding references) with references limited to no more than 15 (fifteen). No abstract is required, but a brief introduction stating the writer's viewpoint should be included as part of the text. Figures and tables are not required.

**Practice Management**

A column that focuses on a contemporary issue in clinical physiatric practice relating to health policy, business and/or medical issues such as coding and billing, practice innovations, and new trends in physiatric education/training after residency/fellowship. Manuscripts should be no more than 2,500 words and include an introduction, presentation of the main issue(s) including a comprehensive discussion of clinical implications, and a brief conclusion. There should be no more than 15 (fifteen) references and figures or tables should be limited to two.

**Ethical-Legal Feature topics**

An in-depth assessment of a specific topic in physical medicine and rehabilitation that raises questions and concerns across the medical, ethical, and legal fields. Depending on the topic, the column may include either, or both, an ethical and legal perspective which provides the reader with a unique or new perspective on the subject. (If both a legal and ethical piece are presented, these may represent convergent or divergent ideas). The total word count for this column is 3,000 (excluding references) with references limited to no more than 15 (fifteen). No abstract is required, but a brief introduction stating the purpose of the discussion should be included as part of the text. Figures and tables are not required.

**Invited Perspective**

Invited commentaries or viewpoints on contemporary topics in the field of physical medicine and rehabilitation featuring medical diagnosis and treatment, educational and medical training, socioeconomic factors, and others topics. These are usually solicited from experts and leaders in the field and are designed to educate and stimulate thought and discussion. Perspective discusses current conditions and future expectations and authors may add personal insight and opinion. Manuscripts should be approximately 2,000 words. At the Editor-in-Chief’s discretion, unsolicited Perspective manuscripts will be considered for publication, but it is strongly suggested that potential authors contact the Editorial Office first.

**International Perspective**

Invited descriptions, viewpoints, or reviews on contemporary topics of international relevance to the field of physical medicine and rehabilitation. It focuses on areas of scientific and clinical relevance for the advancement of rehabilitation in an international context. Articles can present and discuss current practice, emerging issues, or trends and developments from a specific part of the world. Other topics of broad international relevance are also considered. These are usually solicited from experts and leaders in the field, and authors may add personal insight and opinion. Manuscripts should be approximately 2,500 words. At the Editor-in-Chief’s discretion, unsolicited manuscripts will be considered for publication, but it is strongly suggested that potential authors contact the Editorial Office first.

**BEFORE YOU BEGIN**

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Human Studies:
Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions, and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals. Written consents must be retained by the author. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission. To protect patient anonymity, do not submit patient permission forms with your manuscript.

Authors from U.S. institutions must comply with all regulations of the Health Insurance Portability and Accountability Act (HIPAA) of 1996.

If an IRB exists at the institution(s) in which any study involving human subjects is conducted, the investigators must obtain prior approval. This requirement applies to prospective and retrospective studies (including technical notes and case reports) that involve any direct interaction with patients OR evaluation or review of private information (eg, imaging studies or chart reviews).

If the IRB at the participating institution does not require approval for the type of research being performed, a statement to this effect must be included in the manuscript. If no IRB existed at the time the study was initiated, the authors must include a statement in the manuscript indicating as such and that principles of the Declaration of Helsinki (http://ohsr.od.nih.gov/guidelines/helsinki.html) were followed. If a manuscript reports on the emergent use of a material or device not approved by
the Food and Drug Administration or accepted as standard of practice, the authors must state that they obtained informed consent from the patient (when feasible) and reported the case to the local IRB within 1 week of the event. This procedure is only valid for a single patient.

**Animal Studies:**
Manuscripts reporting research involving animals must include a statement that either the protocol was approved by an institutional animal care board or that the animal care complied with the "Principles of Laboratory Care" (formulated by the National Society for Medical Research) or the "Guide for the Care and Use of Laboratory Animals" (National Institutes of Health).

**Disclosure of Conflict of Interest:**
Each author has reviewed *PM&R*’s policy on Conflict of Interest and has completed the Disclosure Form (http://www.icmje.org/coi_disclosure.pdf) which must be returned to the *PM&R* editorial office along with the Conditions for Submission Form. A notation of a disclosure will be included as a footnote in the article.

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These instructions generally follow the Uniform Requirements for Manuscripts Submitted to Biomedical Journals (N Engl J Med 1997; 336:309 or see [http://www.icmje.org/index.html](http://www.icmje.org/index.html)). Once accepted, manuscripts are copy edited to conform to the Journal's standards and style.

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This journal operates a double blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of one independent expert reviewer to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

**Double-blind review**

This journal uses double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. More information is available on our website. To facilitate this, please include the following separately:

*Title page (with author details):* This should include the title, authors' names, affiliations, acknowledgements and any Declaration of Interest statement, and a complete address for the corresponding author including an e-mail address.

*Blinded manuscript (no author details):* The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

**Format**

The preferred word processing program is Microsoft Word. Manuscripts should be double-spaced throughout (including tables, references, and figure legends), and have at least 3 cm margins. The text should be ragged right (no right justification). Embedded instructions (e.g., italics, underlines, boldface) should not be used or kept to a minimum. Do not use coding for centering. Insert only one space after punctuation marks. Sequential page numbering should begin with the abstract. The order of sections is Abstract, Text, Acknowledgments, References, Tables, and Figure Legends. To ensure blinded peer-review, no direct references to the author(s) or institution of origin should be made anywhere in the text or figures. To facilitate peer review, please add line numbers to the document. Do not import figures or tables into the text document. Please do not upload text or tables as PDF files.

**Article structure**
Title Page
The first page of your manuscript should be a blind title page. As a separate document, include a title page listing all authors’ full names, highest academic degrees, and affiliations; name and address for correspondence, including fax number, telephone number, and e-mail address; and whether the material was presented at an AAPM&R Annual Assembly. Indicate any funding source and provide grant numbers for NIH funding.

Structured Abstracts
The structured abstract is necessary for Original Research and Analytical Review articles. The structured abstract should be no more than 300 words, appear on the page following the title page, and use the following headings and information:

Abstracts for Original Research Articles:
Background:
Provide 2-3 sentences that describe the reason for this study, including the knowledge gap in the literature and how this study is designed to fill that gap. Do not repeat the Objective.

Objective:
State the main question or objective of the study and the major hypothesis tested, if any.

Design:
Describe the design of the study, indicating, as appropriate, use of randomization, blinding, criterion standards for diagnostic tests, temporal direction (retrospective or prospective), and so on.

Setting:
Indicate the study setting, including the level of clinical care (eg, primary or tertiary, private practice or institutional).

Patients (or Participants):
State selection procedures, entry criteria, and numbers of participants entering and finishing the study.

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Describe essential features of any interventions, including their method and duration of administration. For observational studies, clearly outline the independent variables.

Main Outcome Measurements:
The primary study outcome measures (dependent variables) should be indicated as planned before data collection began. If the hypothesis being reported was formulated during or after data collection, this fact should be clearly stated.

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Report the main findings of the study.

Conclusions:
State only those conclusions of the study that are directly supported by data, along with their clinical application (avoiding overgeneralization) or whether additional study is required before the information should be used in usual clinical settings.

At the end of the abstract, please indicate the level of evidence for the manuscript you are submitting, according to the following:

1 Level I High Level randomized controlled trial (RCT)
Systematic review/meta analyses Level II Low level RCT
Prospective Study Level III Retrospective Study
Case controlled Level IV Narrative Review
Case series Level V Case Report

Acknowledgments
On a separate page, list any significant contributors to the conduct of the study or preparation of the manuscript other than your co-authors. Authors are responsible for obtaining permission from persons acknowledged for reasons other than technical, secretarial, or financial support.
**Style**
Follow the American Medical Association (AMA) Manual of Style, 10th edition. Stedman's Medical Dictionary (27th edition) and Merriam Webster's Collegiate Dictionary (10th edition) should be used as standard references. Use nonproprietary names of drugs, devices, and other products, unless the specific trade name of a drug is essential to the discussion. Capitalize trade names and place them in parentheses after the generic names. Include the name and location (city and state in USA; city and country outside USA.) of the manufacturer of any drug, supply, or equipment mentioned in the manuscript. Use the metric system to express units of measure and degrees Celsius to express temperatures, and use SI units rather than conventional units.

Laboratory slang and clinical jargon should be avoided. Keep unique abbreviations to a minimum. Spell out the full term for each abbreviation at first use in the text unless it is a standard unit of measure.

When expressing $P$ values:
Do not include leading zero, eg, $P < .05$ not $P < 0.05$. Do not report $P$ value of 1 or zero. If necessary, please change "1" to >.99 and zero to ".001". Round any $P$ value greater than .01 to two decimal places and less than .01 to three decimal places.

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Electronic art should be created/scanned and saved and submitted as either a TIFF (tagged image file format) or as an EPS (encapsulated postscript) file. Figures must be cited in the text and numbered in order of first mention. Make sure that the figure number is marked clearly on the figure or part of the electronic file name (ie, Figure1.tif). Line art must have a resolution of at least 1200 dpi (dots per inch), and electronic photographs, radiographs, CT scans, and scanned images must have a resolution of at least 300 dpi. Images should be supplied at a size that approximates the final figure size in the print journal. If fonts are used in the artwork, they must be converted to paths or outlines or they must be embedded in the files. Color images must be created/scanned and saved and submitted as CMYK files. Please note that artwork generated from office suite programs such Corel Draw and MS Word and artwork downloaded from the Internet (JPEG or GIFF files) cannot be used. Color illustrations are published at the discretion of the editorial office without additional charge to authors.

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**References**
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