

# Spinal Cord

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## ABOUT THE JOURNAL

### Aims and Scope

*Spinal Cord* is a specialised, international journal that has been publishing spinal cord related manuscripts since 1963. It appears monthly, online and in print, and accepts contributions on spinal cord anatomy, physiology and management of injury and disease. *Spinal Cord* is multi-disciplinary and publishes contributions across the entire spectrum of research ranging from basic science to applied clinical research. It focuses on high quality original research, systematic reviews and narrative reviews.

*Spinal Cord's* sister journal *Spinal Cord Series and Cases* publishes case reports, small case series and studies of regional interest. For more information, please see the aims and scope of [Spinal Cord Series and Cases](#).

### Journal Details

#### Editor-in-Chief:

Professor Lisa Harvey  
The University of Sydney, Australia  
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#### Editorial office:

[spinalcord@iscos.org.uk](mailto:spinalcord@iscos.org.uk)

**Impact factor:** 1.870 (2016 *Journal Citation Reports*, Thomson Reuters, 2017)

**Frequency:** 12 issues a year

#### Abstracted in:

BIOBASE/Current Awareness in Biological Sciences  
Biological Abstracts  
BIOSIS  
British Medicine  
Current Contents  
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### Clinical Trials

#### IMPORTANT MESSAGE: Mandatory requirement starting 1st January 2018

From 2018: All clinical trials starting on or after January 1<sup>st</sup> 2018 **MUST** be registered **BEFORE** the first participant is randomised to be accepted for publication in *Spinal Cord*. A clinical trial is any study in which participants are allocated to a treatment.

See [here](#) for more details and see below section on Clinical Trials for more details.

## ARTICLE TYPE SPECIFICATIONS

ARTICLE DESCRIPTION	ABSTRACT	WORD LIMIT	TABLES/ FIGURES
<p><b>Original Articles</b> Please see 'Preparation of Original Articles' below for further details.</p> <p><i>Spinal Cord</i> prioritises original research that contains prospectively collected data driven by clear a priori hypothesis. This includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• randomised controlled trials (please see requirement for trial registration above)</li> <li>• diagnostic studies</li> <li>• cohort studies (if the sample is representative of the target population)</li> <li>• case-control studies</li> <li>• psychometric studies</li> <li>• basic cellular studies</li> <li>• animal studies</li> <li>• qualitative studies</li> <li>• explanatory or mechanistic studies</li> <li>• economic evaluation studies</li> </ul> <p>The following types of studies are a low publication priority:</p> <ul style="list-style-type: none"> <li>• retrospective chart audits</li> <li>• studies of the demographics of patients presenting with onset of SCI</li> <li>• studies that are only of regional interest</li> <li>• studies examining the reliability of outcome measures translated into a non-english language</li> <li>• surveys</li> </ul> <p>Exceptions will be made if the authors can demonstrate that the study is particularly novel and would be of wide interest to an international readership.</p>	Structured abstract, max 250 words	3,500 words max*	Up to 3 Figures and 4 Tables*
<p><b>Reviews</b> <i>Spinal Cord</i> prioritises systematic reviews about treatment effectiveness which have clearly stated PICO with results presented in forest plots including meta-analyses as appropriate. Systematic reviews examining incidence or prevalence of SCI or of a secondary condition will also be prioritised.</p> <p>Narrative reviews will be considered but only if the topic is of wide interest to readers and has not already been extensively reviewed, or the authors can demonstrate that the review adds new insights to a previous review on the topic. Authors are encouraged to seek feedback about suitability for publication of narrative reviews from the Editorial Office before submitting.</p>	Structured abstract, max 250 words	4,500 words max*	Up to 3 Figures and 2 Tables*

<b>Editorials</b> Editorials are by invitation only, although readers and authors are encouraged to submit suggestions for Editorials. The Editor-in-Chief may invite an author to write an editorial.	No abstract required		N/A
<b>Letters to the Editor</b> Letters to the editor (less than 800 words and 5 references) will be considered if they relate to a previously published manuscript in <i>Spinal Cord</i> or a current controversial issue. Letters that highlight an important weakness with the methodology or interpretation of the results of a published paper will be prioritised.  Letters to the Editor do not need an abstract or headings.	No abstract required	800 words	No tables or figures unless essential

\* Unless these restrictions prevent authors from conveying key messages. If these restrictions are exceeded then authors need to provide an explanation in their covering letter and be aware that they may be asked to reduce the number of Figures, Tables and length of the manuscript. Authors can put extensive descriptions of particular methods or statistical techniques, and extra Figures or Tables in Supplementary Files.

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Please note that Original Articles and Reviews must contain the following components. All sections of the article text where noted (\*) must be included in a single article file and uploaded in Word format. Tables may be included in the article text or uploaded as separate editable files. Figures must be uploaded as separate figure files and not included in the article file. Please see below for further details.

- Cover letter
- Title page (excluding acknowledgements)\*
- Structured Abstract\*
- Keywords\*
- Introduction\*
- Methods\*
- Results\*
- Discussion\*
- Acknowledgements\*
- Conflicts of Interest\*
- References\*
- Figure legends\*
- Tables
- Figures

Clinical trials must be prospectively registered if commenced after 1<sup>st</sup> Jan 2018, and reported according to CONSORT guidelines (see details in the [Editorial Policies](#)).

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**Title Page:** The title page need to contain the title of the paper, the full names of all the authors and their affiliations, together with the name, full postal address, telephone and fax numbers and e-

mail address of the corresponding author (this information is also asked for on the electronic submission form). The title page must also contain a Conflicts of Interest statement (see [Editorial Policy](#) section). The following rules should be followed:

- The title should be brief, informative, of 150 characters or less.
- The title should where possible reflect the study design  
 Eg 1. The effectiveness of robotic gait training: a clinical trial  
 Eg 2. The need for ventilator support following recent spinal cord injury: a retrospective chart audit.
- The running title should consist of no more than 50 letters and spaces. It should be as brief as possible, convey the essential message of the paper and not contain abbreviations.
- Authors should disclose the sources of any support for the work, received in the form of grants and/or equipment and drugs.
- If authors regard it as essential to indicate that two or more co-authors are equal in status, they may be identified by an asterisk symbol with the caption 'These authors contributed equally to this work' immediately under the address list.

### Reporting of demographic and neurological details:

Demographic data should be reported as mean and standard deviation, or median and interquartile range depending on whether the data are skewed or not. If data are to be grouped, then authors are encouraged to follow the recommendations of Biering-Sørensen *et al.*<sup>1</sup> For example, age should be grouped in 15 year increments: 0–15, 16–30, 31–45, 46–60, 61–75, 76+. For pediatric SCI the following increments are recommended: 0–5, 6–12, 13–15, 16–21. When time since injury is grouped, 5 year increments should be used: <1 year, 1–5 years, 6–10 years, 11–15 years, and 5-year increments thereafter. Calendar time (years during which the study is conducted) should be grouped by either 5 or 10 year increments with years ending in 4 or 9. The severity of injury should be grouped as C1–4 ASIA Impairment Scale grade (AIS) A, B, or C; C5–8 AIS A, B, or C; T1–S5 AIS A, B, or C; AIS D at any

injury level; Ventilator-dependent at any injury level or AIS grade. If data are limited, the above groups can be collapsed.

**Structured Abstract:** Original Articles and Reviews must be prepared with a structured abstract designed to summarise the essential features of the paper in a logical and concise sequence under the following mandatory headings:

- **Study Design** (eg. Retrospective chart audit; cohort study; clinical trial; Systematic Review; Narrative Review – see “Article Description” for other examples)
- **Objectives**
- **Setting** (eg. hospital in Gothenburg, Sweden; University-based laboratory in Chicago, IL, USA; community in Sydney, Australia; hospitals from multiple countries in Asia.)
- **Methods**
- **Results**
- **Conclusions:** Framed with respect to the objectives and primary results
- **Sponsorship** (where applicable)

**Keywords:** Up to six short [MeSH](#) words or phrases which best describe the paper. These will be used for indexing your paper.

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**Methods:** The Methods section should contain sufficient detail, so that all experimental procedures can be reproduced. All standard procedures and outcome measures should be referenced. Methods, that have been published in detail elsewhere can be summarised with a reference to the full methodology. Authors should provide the name of the manufacturer and their location for any specifically named medical equipment or instrument. All drugs should be identified by their pharmaceutical names, and by their trade name if relevant.

**Statement of Ethics:** Where a manuscript concerns animal experimentation or the use of human volunteers, the authors should include a statement at the end of the Methods section stating: “I/we certify that all applicable institutional and governmental regulations concerning the ethical use of human volunteers/animals were followed during the course of this research” (delete inappropriate words).

**Results:** The Results section should briefly present the experimental data in text, Tables or Figures. Results presented in Tables and Figures should not be described extensively in the text. All results comparing groups should be presented as point estimates with measures of precision (eg. mean between-group differences, odds ratios or hazard ratios with 95% confidence intervals).

**Discussion:** The Discussion section should focus on the interpretation and the significance of the findings with concise objective comments that describe the authors’ work in relation to the work of others in the area. It should not repeat information presented in the Results section. The final paragraph should highlight the main conclusion(s), and provide some indication of the direction of future research.

**Acknowledgements:** These should be brief, and should include sources of support including sponsorship (e.g. university, charity,

commercial organisation) and sources of material (e.g. novel drugs) not available commercially.

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**References:** Only papers directly related to the article should be cited. Exhaustive lists should be avoided. References should follow the Vancouver format. In the text they should appear as numbers starting at one.

Example “..the scale maintains adequate construct validity and measures the attributes it purports to measure.<sup>15,16</sup>”

The full details of the References should appear at the end of the paper (double-spaced) in numerical order corresponding to the order of citation in the text. Where a reference is to appear next to a number in the text, for example following an equation, chemical formula or biological acronym, citations should be written as (ref. X) and not as superscript.

Example “detectable levels of endogenous Bcl-2 (ref. 3), as confirmed by western blot”.

All authors should be listed for papers with up to six authors; for papers with more than six authors, only the first six authors should be listed, followed by *et al.* Abbreviations for titles of medical periodicals should conform to those used in the latest edition of Index Medicus. The first and last page numbers for each reference should be provided. Abstracts and letters must be identified as such. Papers in press may be included in the list of references.

Personal communications can be allocated a number and included in the list of references in the usual way or simply referred to in the text. In either case authors must obtain permission from the individual concerned to quote his/her unpublished work.

Examples:

*Journal article:*

Belkaid Y, Rouse BT. Natural regulatory T cells in infectious disease. *Nat Immunol* 2005; **6**: 353–360.

*Journal article, e-pub ahead of print:*

Bonin M, Pursche S, Bergeman T, Leopold T, Illmer T, Ehninger G *et al.* F-ara-A pharmacokinetics during reduced-intensity conditioning therapy with fludarabine and busulfan. *Bone Marrow Transplant* 2007; e-pub ahead of print 8 January 2007; doi:10.1038/sj.bmt.1705565

*Journal article, in press:*

Gallardo RL, Juneja HS, Gardner FH. Normal human marrow stromal cells induce clonal growth of human malignant T-lymphoblasts. *Int J Cell Cloning* (in press)

*Complete book:*

Atkinson K, Champlin R, Ritz J, Fibbe W, Ljungman P, Brenner MK (eds). *Clinical Bone Marrow and Blood Stem Cell Transplantation*, 3rd edn. Cambridge University Press: Cambridge, UK, 2004.

#### Chapter in book:

Coccia PF. Hematopoietic cell transplantation for osteopetrosis. In: Blume KG, Forman SJ, Appelbaum FR (eds). *Thomas' Hematopoietic Cell Transplantation*, 3rd edn. Blackwell Publishing Ltd: Malden, MA, USA, 2004, pp 1443–1454.

#### Abstract:

Syrjala KL, Abrams JR, Storer B, Heiman JR. Prospective risk factors for five-year sexuality late effects in men and women after haematopoietic cell transplantation. *Bone Marrow Transplant* 2006; **37**(Suppl 1): S4 (abstract 107).

#### Correspondence:

Caocci G, Pisu S. Overcoming scientific barriers and human prudence [letter]. *Bone Marrow Transplant* 2006; **38**: 829–830.

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Tables should not include bold formatting unless there is a clear scientific significance of the bolding which is explained in the table legend. If not, all bold formatting will be removed at the copy editing stage to ensure the Table adheres to the journal style.

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- Include a text summary (no more than 50 words) to describe the contents of each file.
- Identify the types of files (file formats) submitted.
- Include the text "Supplementary Information is available at *Spinal Cord's* website" at the end of the article and before the references.

**Availability of Data and Materials:** Please see our [Editorial Policies](#) for information regarding data, protocols, sequences, or structures.

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- Normally distributed data should be expressed as mean (SD). Skewed data should be expressed as median (25% to 75% percentiles).



- Sole reliance on statistical significance (and p values) is discouraged. Instead, we encourage reporting of effect sizes preferably in the units of the original scale. For example, we encourage authors to write “*people with tetraplegia are twice as likely to experience respiratory problems than people with paraplegia (OR 0.47, 95% CI 0.32 to 0.69)*” or “*people with spinal cord injury walked 0.45 m/s (95% CI 0.35 to 0.55) slower than their age matched healthy counterparts*”. We discourage statements such as “*people with spinal cord injury had a significant decrease in psychological distress after counselling (p = 0.02)*”.
- Units: Use metric units (SI units) as fully as possible. Preferably give measurements of energy in kilojoules or Megajoules with kilocalories in parentheses (1 kcal = 4.186kJ). Use % throughout.
- Express all 95% confidence intervals in this format – “95% CI, xx to xx”.
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- Use person centered terminology throughout eg. “people with tetraplegia” (not “tetraplegics”).
- Use the term “tetraplegia” (not “quadriplegia”).
- Use the words “person/s”, “people” or “individual/s” where ever possible (rather than “patient/s”) unless this distracts from the readability or meaning.
- Use the word “participant/s”, not “subject/s”.
- Avoid spurious precision. As a general rule, report numbers between 0 and 1 to 2 decimal places, between 1 and 10 to 1 decimal place, and above 10 with no decimal place

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*Spinal Cord* is read by scientists from diverse backgrounds and many are not native English speakers. In addition, the readership of *Spinal Cord* is multidisciplinary; therefore authors need to ensure their findings are clearly communicated. Language and concepts that are well known in one subfield may not be well known in another. Thus, technical jargon should be avoided as far as possible and clearly explained where its use is unavoidable. Abbreviations, particularly those that are not standard, should also be kept to a minimum. The background, rationale and main conclusions of the study should be clearly explained and understandable by all working in the area of spinal cord injuries. Titles and abstracts in particular should be written in language that will be readily understood by all readers.

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As defined by the International Committee of Medical Journal Editors (ICMJE), a clinical trial is any research project that prospectively assigns human participants to intervention with or without a comparison group to study the cause-and-effect relationship between a medical intervention and a health outcome. An intervention is any intervention used to modify a health outcome and includes but is not limited to drugs, surgical procedures, devices, behavioural treatments, and process-of-care changes. Nonrandomized trials are not exempt from the registration requirement if they meet the above criteria.

When reporting experiments on human participants, authors must indicate whether the procedures were in accordance with the ethical standards of the responsible committee on human experimentation (institutional or regional) or with the Helsinki Declaration of 1975 (as revised in 1983). Include Institutional Review Board or Animal Care and Use Committee approvals.

All clinical trials commencing after 1<sup>st</sup> January 2018 must be prospectively registered in a public registry prior to the commencement of the trial as per the ICMJE ([www.icmje.org](http://www.icmje.org)). Acceptable registries must meet the following ICMJE requirements:



- be publicly available, searchable, and open to all prospective registrants
- have a validation mechanism for registration data
- be managed by a not-for-profit organization

Examples of registries that meet these criteria include:

- the registry sponsored by the United States National Library of Medicine ([www.clinicaltrials.gov](http://www.clinicaltrials.gov));
- the International Standard Randomized Controlled Trial Number Registry ([www.controlled-trials.com](http://www.controlled-trials.com));
- the Australian and New Zealand Clinical Trials registry (<http://www.anzctr.org.au>);
- and the European Clinical Trials Database (<https://eudract.ema.europa.eu/>).

The trial registry number must be included in the manuscript and provided on submission.

### Reporting guidelines

Studies must adhere to the reporting guidelines as outlined by the Equator Network (<http://www.equator-network.org/>). Where appropriate the accompanying checklists need to be submitted with the manuscript to indicate where in the manuscript each item is reported. These include:

- the [CONSORT](#) guidelines for randomised trials.
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- the [STARD](#) guidelines for diagnostic/prognostic studies.
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### Conflicts of Interest

In the interests of transparency and to help readers form their own judgments of potential bias, authors must declare whether or not there are any competing financial interests in relation to the work described. This information must be included in the cover letter and on the title page of the manuscript. In cases where the authors declare a competing financial interest, a statement to that effect is published as part of the article. If no such conflict exists, the statement will simply read that the authors have nothing to disclose.

For the purposes of this statement, competing interests are defined as those of a financial nature that, through their potential influence on behaviour or content, or from perception of such potential influences, could undermine the objectivity, integrity or perceived value of a publication. They can include any of the following:

- **Funding:** Research support (including salaries, equipment, supplies, reimbursement for attending symposia, and other expenses) by organizations that may gain or lose financially through this publication. The role of the funding body in the design of the study, collection and analysis of data and decision to publish should be stated.
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- **Personal financial interests:** Stocks or shares in companies that may gain or lose financially through publication; consultation fees or other forms of remuneration from organizations that may gain or lose financially; patents or patent applications whose value may be affected by publication.

It is difficult to specify a threshold at which a financial interest becomes significant, but note that many US universities require faculty members to disclose interests exceeding \$10,000 or 5% equity in a company. Any such figure is arbitrary, so we offer as one possible practical alternative guideline: "Declare all interests that could embarrass you were they to become publicly known after your work was published." We do not consider diversified mutual funds or investment trusts to constitute a competing financial interest.

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Following the Conflicts of Interest heading, there must be a listing for each author, detailing the professional services relevant to the submission. Neither the precise amount received from each entity nor the aggregate income from these sources needs to be provided. Professional services include any activities for which the individual is, has been, or will be compensated with cash, royalties, fees, stock or stock options in exchange for work performed, advice or counsel provided, or for other services related to the author's professional knowledge and skills. This would include, but not necessarily be limited to, the identification of organizations from which the author received contracts or in which he or she holds an equity stake if professional services were provided in conjunction with the transaction.

Examples of declarations are:

- **Conflicts of interest.**  
The authors declare no conflicts of interest.
- **Conflicts of interest.**  
Dr Caron's work has been funded by the NIH. He has received compensation as a member of the scientific advisory board of Acadia Pharmaceutical and owns stock in the company. He also has consulted for Lundbeck and received compensation. Dr Rothman and Dr Jensen declare no potential conflicts of interest.

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Material submitted must not be discussed with the media. We reserve the right to halt the consideration or publication of a paper if this condition is broken. If a paper is particularly newsworthy, the press release will be sent to our list of journalists in advance of publication with an embargo that forbids any coverage of the manuscript, or the findings of the manuscript, until the time and date clearly stated. Authors whose papers are scheduled for publication may also arrange their own publicity (for instance

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Each author must have contributed sufficiently to the intellectual content of the submission. The corresponding author should list all authors and their contributions to the work. Any changes to the author list after submission, such as a change in the order of the authors, or the deletion or addition of authors, must be approved by a signed letter from every author. The corresponding author must confirm that he or she has had full access to the data in the study and final responsibility for the decision to submit for publication. To qualify as a contributing author, one must meet all of the following criteria:

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- Drafted or revised the manuscript.
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Images submitted with a manuscript for review should be minimally processed (for instance, to add arrows to a micrograph). Authors should retain their unprocessed data and metadata files, as editors may request them to aid in manuscript evaluation. If

unprocessed data is unavailable, manuscript evaluation may be stalled until the issue is resolved.

A certain degree of image processing is acceptable for publication but the final image must correctly represent the original data and conform to community standards. The guidelines below will aid in accurate data presentation at the image processing level:

- Authors should list all image acquisition tools and image processing software packages used. Authors should document key image-gathering settings and processing manipulations in the Methods section.
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For **gels and blots**, positive and negative controls, as well as molecular size markers, should be included on each gel and blot – either in the main figure or an expanded data supplementary figure. The display of cropped gels and blots in the main paper is encouraged if it improves the clarity and conciseness of the presentation. In such cases, the cropping must be mentioned in the figure legend.

- Vertically sliced gels that juxtapose lanes that were not contiguous in the experiment must have a clear separation or a black line delineating the boundary between the gels.
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- For quantitative comparisons, appropriate reagents, controls and imaging methods with linear signal ranges should be used.

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- In the Methods section, specify the type of equipment (microscopes/objective lenses, cameras, detectors, filter model and batch number) and acquisition software used. Although we appreciate that there is some variation between instruments, equipment settings for critical measurements should also be listed.
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- Processing software should be named and manipulations indicated (such as type of deconvolution, three-dimensional reconstructions, surface and volume rendering, ‘gamma changes’, filtering, thresholding and projection).
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### Research Data Policy

We strongly encourage authors to make available to readers all datasets on which the conclusions of a paper rely. We encourage authors to ensure that their datasets are either deposited in publicly available repositories (where available and appropriate) or presented in the main manuscript or additional supporting files whenever possible. Where one does not exist, the information must be made available to referees at submission and to readers promptly upon request. Any restrictions on material availability or other relevant information must be disclosed in the manuscript’s Methods section and should include details of how materials and information may be obtained.

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Papers reporting protein or DNA sequences and molecular structures will not be accepted without an accession number to [Genbank/EMBL/DBJ, SWISS-PROT](#), [ProteinDataBank](#), or other publicly available database in general use in the field that gives free access to researchers from the date of publication.

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#### **References cited in these guidelines**

1. Biering-Sorensen F, DeVivo MJ, Charlifue S, Chen Y, New PW, Noonan V. et al. International Spinal Cord Injury Core Data Set (version 2.0) including standardization of reporting. *Spinal Cord* 2017; 55: 759-764.