



About the Journal	1	Post-Acceptance	8
Article Type Specifications	1	Editorial Policies	9
Preparation of Articles	2	Further Information	15
How to Submit	7		

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, management of injury and disease, and the quality of life and life circumstances of people with a spinal cord injury. *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: Clinical Management in Spinal Cord Disorders* 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 Daniel Graves, Sidney Kimmel Medical College, Thomas Jefferson University, USA, SpinalCord@comcast.net

Editorial Office: spinalcord@iscos.org.uk

Frequency: 12 issues a year

Abstracted in:

EBSCO Discovery Service

Google Scholar

Medline/PubMed

OCLC

Scopus

Summon by ProQuest

BIOSIS

Current Contents/Clinical Medicine

Science Citation Index Expanded (SciSearch)

EBSCO Academic Search

EBSCO Advanced Placement Source

EBSCO Biomedical Reference Collection

EBSCO CINAHL

EBSCO SPORTDiscus

EBSCO STM Source

EBSCO Rehabilitation & Sports Medicine Science

EBSCO TOC Premier

ARTICLE TYPE SPECIFICATIONS

ARTICLE DESCRIPTION	SPECIFICATION
<p>Review Article <i>Spinal Cord</i> prioritises systematic reviews about treatment effectiveness which have clearly stated Population-Intervention-Comparator-Outcomes (PICO) elements 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. Narrative reviews will be considered but only if the topic is of wide interest to readers. The topics of both narrative and systematic reviews should not already have 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>	<p>Structured abstract max 250 words; Main body of text (excluding abstract, references, figures/tables) not to exceed 4,500 words*; Max 2 tables and 3 figures Max 30 references (References of the studies extracted can go in supplementary files)</p>
<p>Correspondence Correspondences will be considered if they relate to a previously published manuscript in <i>Spinal Cord</i> or a current controversial issue. Correspondences that highlight an important weakness with the methodology or interpretation of the results of a published paper will be prioritised.</p>	<p>No abstract/subheadings required; Main body of text (excluding references, figures/tables) not to exceed 800 words; No tables /figures unless essential; Max 5 references</p>

<p>Article (presenting primary data) Please see 'Preparation of Articles' below for further details. <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"> • randomised and non-randomised clinical trials (please see requirement for trial registration below) • diagnostic studies • cohort studies (if the sample is reasonably representative of the target population) • case-control studies • psychometric studies • basic cellular studies • animal studies • qualitative studies • explanatory or mechanistic studies • economic evaluation studies <p>The following types of studies are a low publication priority:</p> <ul style="list-style-type: none"> • retrospective chart audits • studies of the demographics of patients of a single hospital presenting with new SCI • studies that are only of regional interest • studies examining the reliability of outcome measures translated into a non-English language • surveys of small and non-representative samples <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>	<p>Structured abstract max 250 words; Main body of text (excluding abstract, references, figures/tables) not to exceed 3,500 words*; Max 4 tables and 3 figures; Max 30 references</p>
<p>Protocol (when submitting please select manuscript type 'Article') Protocols of large cohort studies or clinical trials may be published from time-to-time. However, the studies need to be of high importance (e.g. answering a key clinical question, or offering great methodologic innovation) with a strong likelihood of completion (evident by sufficient funding) The headings for the Structured Abstract and within the article text should be the same as for Articles as outlined below with the following exception:</p> <ul style="list-style-type: none"> • the Results and Discussion sections should be replaced with one section titled 'Ethics and Dissemination' <p>Additional subheadings within these sections are allowed</p>	<p>Structured abstract max 250 words; Main body of text (excluding abstract, references, figures/tables) not to exceed 2,500 words*; Max 1 table and 2 figures; Max 30 references</p>
<p>Perspective Any type of scholarly paper that requires less than 1,500 words and 10 references. This may include summaries of Cochrane Reviewers (provided by the Cochrane Rehabilitation Group), summaries of well-recognised clinical practice guidelines, summaries of position or consensus statements by Societies and organisations affiliated with ISCoS, summaries of important strategic planning meetings, summaries of medical or research procedures or new assessment tools, or short narratives on controversial topics. Perspectives need to be balanced but can be more opinionated than original research. They should stimulate discussion or provide an accessible summary of content that would be of interest to the readers of <i>Spinal Cord</i>.</p>	<p>Unstructured abstract/brief overview max 150 words; Main body of text (excluding references, figures/tables) not to exceed 1,500 words; Max 1 table and/or figure* Max 10 references</p>

* 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, References and/or length of the manuscript. Authors can put extensive descriptions of particular methods or statistical techniques, and extra Figures or Tables in Supplementary Files.

*Additional Tables and Figures can be included as Supplementary Files.

Please Note: all submissions should include a Title Page and a Conflict of Interest Statement. More information can be found below.

Prior Registrations

Clinical Trials

Important Message: Mandatory requirements starting 1st January 2018

From 2018: All clinical trials starting on or after 1st January 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. Most registries also allow registration of non-interventional studies, and we encourage researchers to register their observational studies. Trials commenced before 2018 must be retrospectively registered. Read [here](#) and see the below section on Clinical Trials for more details.

Systematic Reviews

Systematic Reviews can be registered in [PROSPERO](#), and *Spinal Cord* will at some point start requiring such pre-registration.

PREPARATION OF ARTICLE

House Style: Authors should adhere to the following formatting guidelines:

- We accept UK English or American English, however authors should be consistent in their use of either within the manuscript
- Text should be double spaced with margins of between 1cm and 3cm wide.
- All pages and lines to be numbered continuously (do not restart at the beginning of each page). To add page numbers in MS Word, go to Insert > Page Numbers. To add line numbers go to Layout, File, Continuous
- Do not make rules thinner than 1pt (0.36mm).
- Use a coarse hatching pattern rather than shading for tints in graphs.
- Colour should be distinct when being used as an identifying tool.
- Commas, not spaces should be used to separate thousands. Decimal values should be preceded by a dot, not a comma. The number of decimals should be consistent for each variable throughout the manuscript and should be appropriate to avoid spurious precision.

- At first mention of a manufacturer, the town (and state if USA) and country should be provided.
- Normally distributed data should be expressed as mean (SD). Skewed data should be expressed as median (25% and 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 2.13, 95% CI 1.91 - 2.37)*” or “*people with spinal cord injury walked 0.45 m/s (95% CI 0.35 - 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 - xx”.
- Express all means and standard deviations in this format – “the mean (SD) was xx (xx).”
- Use person centred terminology throughout e.g. “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

Please note that Articles must contain the below components (if the authors wish Reviews can also be split under these headings). All sections of the article text where noted (*) must be included in a single article file and uploaded in Word format.

- | | |
|---|----------------------------------|
| • Title page (excluding acknowledgements) * | • Acknowledgements* |
| • (Structured) Abstract* | • Author Contribution Statement* |
| • Introduction* | • Funding* |
| • Methods* | • Ethical Approval* |
| • Results* | • Competing Interests* |
| • Discussion* | • Figure legends* |
| • Data Availability Statement* | • Tables |
| • References* | • Figures |

Cover Letter

Authors should provide a cover letter that includes the affiliation and contact information for the corresponding author. Authors should briefly discuss the importance of the work and explain why it is considered appropriate for the diverse readership of the journal. The cover letter should confirm the material is original research, has not been previously published and has not been/will not be submitted for publication elsewhere while under consideration. If the manuscript has been previously considered for publication in another journal, please include the previous reviewer comments, to help expedite the decision by the Editorial team.

Title Page

The title page should contain:

- Title of the paper - brief, informative, of 150 characters or less and should not make a statement or conclusion but where possible reflect the study design.
E.g. 1: Effectiveness of robotic gait training for people with spinal cord injury: a clinical trial
E.g. 2: The need for ventilator support following recent spinal cord injury
In addition, the title shouldn't include abbreviations unless readers are likely to search for an article by the abbreviation. Regardless the abbreviation needs to be defined in the title.
Inappropriate use of abbreviation: Depression in individuals with (SCI) / Teaching the ISNCSCI.
Appropriate use of abbreviation: Adaptation and validation of the Caregiver Burden Inventory in Spinal Cord Injuries (CBI-SCI) / Rasch analysis of the University of Washington Self-Efficacy Scale short-form (UW-SES-6) in people with long-standing spinal cord injury
- Full first and last names of all authors along with initials for any middle names. Also provide the affiliations of all authors, as well as the e-mail address of the corresponding author (postal addresses are no longer required). 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.

Consortia: For papers containing one or more consortia (or collaboration), all members of the consortium who meet the criteria for authorship must be listed individually as authors on the title page. The name of the consortia needs to also be on the title page and listed as an author (e.g. The BP Consortia). However, phrases such as “on behalf of” should not be used. If necessary, individual authors can be listed in both the main author list and as a member of a consortium. When submitting your manuscript via the online submission system, the consortium name should be entered as an author, together with the contact details of a nominated consortium representative. The Consortium should be mentioned in the Acknowledgements section, not as an Author, when it is made up of a group of people who do not meet authorship criteria. The individual names will not appear in PubMed or elsewhere. Instead, only the name of the Consortia will appear. See here [<https://www.nature.com/documents/nr-consortia-formatting.pdf>] for further consortia formatting guidelines, which should be adhered to prior to acceptance.

Structured Abstract

Articles 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. Authors can also apply this layout to Review Articles if they wish to do so. (Structured abstracts must be used for systematic reviews but unstructured abstracts may be used for narrative reviews).

- **Study Design** (e.g. cohort study; clinical trial; Systematic Review; Narrative Review – see “Article Description” for other examples)
- **Objectives**
- **Setting** (e.g. hospital in Gothenburg, Sweden; University-based laboratory in Chicago, USA; community in Sydney, Australia; hospitals from multiple countries in Asia.) (Narrative and systematic reviews do not need to include this heading)

- **Methods**
- **Results**
- **Conclusions:** Framed with respect to the objectives and primary results
- **Sponsorship** (this is only relevant if a commercial company has sponsored the study. This does not include funding from grants or other sources)

Please note: As with all Springer Nature titles, *Spinal Cord* does not collect keywords. Keywords that are provided to us will not be published. If a term is important in the discoverability of the paper, it should be in the title and/or abstract of the paper.

Graphical Abstracts (optional)

A graphical abstract, which summarizes the manuscript in a visual way, is designed to attract the attention of readers in the table of contents of the journal. Graphical abstracts are published in the table of contents and in the article. The graphic should be submitted as a single file using a standard file format (.tiff, .eps, .jpg, .bmp, .doc, or .pdf.), it should be 9 cm wide x 5 cm high when printed at full scale and a minimum of 300 dpi. All graphical abstracts should be submitted with a white background and imagery should fill the available width, whenever possible. Colour graphical abstracts are encouraged and will be published at no additional charge. Textual statements should be kept to a minimum.

Introduction

The Introduction should assume that the reader is knowledgeable in the field and should therefore be as brief as possible, but can include a short historical review where desirable. Please refrain from commencing with statements such as – “Spinal cord injuries are devastating injuries” or similar.

Methods

This section should contain sufficient detail, so that all experimental procedures can be reproduced by a knowledgeable scientist, and include references. 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.

Results

The Results section should briefly present the experimental data in text, Tables and/or Figures. Tables and Figures should not be described extensively in the text, but the text should refer to key findings/observations in Tables and Figures (e.g. "As shown in Table 2, males are taller than females with a mean (SD) difference of 1.2 (0.3) cm"). 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 clinical implications, and provide some indication of the direction of future research.

Data Availability Statement

Please include a statement at the end of your paper that tells readers where the data generated or analysed during this study can be found e.g. within the published article and its supplementary files, within a recognised repository, with a link to the data in said repository, or if additional data are available from the corresponding author on reasonable request. The inclusion of this statement is mandatory.

Please see the [Data Availability and Policy](#) page on the journal website for more information.

References

Only papers directly related to the article should be cited. Exhaustive lists should be avoided - see limitations on number of references under article type specifications above. References should follow the Vancouver format. In the text they should appear as numbers (starting at one) in square brackets placed before punctuations and starting at one. Example “...the scale maintains adequate construct validity and measures the attributes it purports to measure [15,16].”

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. If you use a reference manager such as Endnote or RefWorks, make sure you check the results for completeness and proper capitalization of author names, Journal names, titles, and year/volume/issue/page information. The doi, PMCID and similar numbers should not be included unless the Reference is only available in electronic format. Please ensure the links to Endnote are removed prior to submission.

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 [NCBI database](#). 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 e.g. “William Jones, personal communication, 2 June 2018”. In either case authors must obtain permission from the individual concerned to quote his/her unpublished work.

Examples:

Journal article:

Neidlein, S, Wirth, R, Pourhassan, M. Iron deficiency, fatigue and muscle strength and function in older hospitalized patients. *Eur J Clin Nutr.* 2020; 75:456–463.

Journal article by DOI:

Kurotani K, Shinsugi C, Takimoto H. Diet quality and household income level among students: 2014 National Health and Nutrition Survey Japan. *Eur J Clin Nutr.* 2020; <https://doi.org/10.1038/s41430-020-00794-1>.

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 ed. Cambridge University Press, Cambridge; 2004.

Chapter in book:

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

Abstract:

Abstracts from the 2020 Annual Scientific Meeting of the British and Irish Hypertension Society (BIHS). *J Hum Hypertens* 34; 2020; 1–20

Website:

Kassambara A. rstatix: pipe-friendly framework for basic statistical tests. 2020. <https://rpkgs.datanovia.com/rstatix/>.

Online Document:

Doe J. Title of subordinate document. In: *The dictionary of substances and their effects*. Royal Society of Chemistry. 1999. <http://www.rsc.org/dose/title> of subordinate document. Accessed 15 Jan 1999.

Acknowledgements

These should be brief, and should include sources of technical assistance, critical advice or other assistance, which contributed to the final manuscript.

Author Contributions

Authors must include a statement about the contribution of each author to the manuscript (see section on [Authorship](#)). The initials of each author may be used. This is an example for a systematic review:

MAJ was responsible for designing the review protocol, writing the protocol and report, conducting the search, screening potentially eligible studies, extracting and analysing data, interpreting results, updating reference lists and creating 'Summary of findings' tables.
SBM was responsible for designing the review protocol and screening potentially eligible studies. She contributed to writing the report, extracting and analysing data, interpreting results and creating 'Summary of findings' tables.
DIH conducted the meta-regression analyses and contributed to the design of the review protocol, writing the report, arbitrating potentially eligible studies, extracting and analysing data and interpreting results.
NAL contributed to data extraction and provided feedback on the report.
FRT and RAL provided feedback on the report.

Funding

The funding section is mandatory. Authors must declare sources of study funding including sponsorship (e.g. university, charity, commercial organization) and sources of material (e.g. novel drugs) not available commercially. If no financial assistance was received in support of the study, please include a statement to this fact here.

Ethical Approval

Authors must provide a statement regarding ethical approval including the reference number (see information on [Human and Other Animal Experiments](#) in the Editorial Policy section for further details). If ethical approval was not required, authors must provide an explanation of why it was not needed.

Competing Interests

Authors must declare whether or not there are any competing interests in relation to the work described. This information must be included at this stage and will be published as part of the paper. Please see the Competing Interests section under [Editorial Policies](#) for detailed information.

Patient Consent for images or information used in a manuscript

If a patient or participant of a study can be identified in any way through images or information presented in a paper, the patient or participant must provide written and signed consent for this identification. The consent needs to be emailed to the editorial office. Alternatively, please indicate where a photograph can be cropped to remove identifiable features. If consent has not been obtained, then any recognizable features must be masked so that the individual is 'officially unrecognisable'.

Figure Legends

These should appear on a separate manuscript page after the References section titled 'Figure Legends'. Each figure should have a brief title and may have a short footnote to clarify the Figure. All measures of variability should be defined either within the title or footnote.

Tables

Tables should only be used to present essential data; they should not duplicate what is written in the text. Use lower case letters starting with 'a' to reference Table footnotes. Tables should consist of at least two columns; columns should always have headings. Ensure each Table is cited within the text and in the correct order, e.g. (Table 3). All measures of variability should be defined either within the table, title or footnote
It is imperative that tables are editable and ideally submitted in Excel format although Word format is acceptable. **If uploading in Excel, each table must be uploaded as a separate workbook with a title or caption and be clearly labelled, sequentially.** Files for Tables need to be saved with one of the following file extensions: .xls / .xlsx / .ods / .doc / .docx. Please ensure that you provide a 'flat' file, with single values in each cell with no macros or links to other workbooks or worksheets and no calculations or functions.

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.

Figures

Figures and images should be labelled sequentially and cited in the text (e.g. Fig.1). **Figures should not be embedded within the text but uploaded as separate files.** The use of three-dimensional histograms is strongly discouraged unless the addition of the third dimension is important for conveying the results. All parts of a figure should be grouped together. Where possible large figures and tables should be included as supplementary material.

Detailed guidelines for submitting artwork can be found by downloading [Artwork Guidelines](#). Using the guidelines, please submit production quality artwork with your initial online submission. If you have followed the guidelines, we will not require the artwork to be resubmitted following the peer-review process, if your paper is accepted for publication.

Colour Charges

There is a charge if authors choose to publish their figures in colour in print publication (which includes the online PDF):

Number of colour illustrations		1	2	3	4	5	6	7+	
Cost	Rest of world	£573	£852	£1,132	£1,303	£1,473	£1,619	£146	per additional colour figure
	USA	\$883	\$1,313	\$1,745	\$2,007	\$2,270	\$2,496	\$226	

(VAT or local taxes will be added where applicable)

Colour charges will not apply to authors who wish to have their figures in colour online only (HTML version of the article but NOT the PDF. If you wish figures to appear in colour in the PDF, colour charges apply).

Colour charges will NOT apply to authors who choose to pay an article processing charge to make their paper Open Access. See Open Access Publication below

Standard abbreviations

Abbreviations should be defined in full at their first usage in the Abstract, and again at their first usage in the body of the manuscript. So on first use of an abbreviation, place it in parentheses after the full item. Do this separately for the abstract and the full texts). Note these abbreviations: gram **g**; litre **l**; milligram **mg**; kilogram **kg**; kilojoule **kJ**; megajoule **mj**; weight **wt**; seconds **s**; minutes **m**; hours **h**. Do not add s for plural units. Terms used less than four times should not be abbreviated. It is not advised to use more than five abbreviations in total unless they are extremely common abbreviations.

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, authors are encouraged to follow the recommendations of Biering-Sørensen *et al.*¹ Age should be grouped in 15 year increments: 0–15, 16–30, 31–45... to 76+. Reporting on the paediatric SCI population should use age groups 0–5, 6–12, 13–14, 15–17 and 18–21. When time since injury is grouped, 5 year increments should be used: <1 year, 1–5 years, 6–10 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.

Supplementary Information

Supplementary Information is material directly relevant to the Method, Results, Discussion and/or Conclusion of an article that cannot be included in the printed version owing to space or format constraints. The article must be complete and self-explanatory for the average reader without the Supplementary Information, which is posted on the journal's website and linked to the article. Supplementary Information may consist of data files, graphics, movies or extensive tables.

Authors should submit Supplementary Information files in a FINAL format as they are not edited, typeset or changed, and will appear online exactly as submitted. Ideally all Supplementary Information files should be merged into one PDF document. Only Supplementary Data/Software/Movie/Audio files should be submitted as separate documents/files. When submitting Supplementary Information, authors are required to:

- Include a text summary (no more than 50 words) to describe the contents of each file.
- Identify the types of files (file formats) submitted.

Please submit supplementary figures, small tables and text as a single combined PDF document. Tables longer than one page should be provided as an Excel or similar file type. For optimal quality video files please use H.264 encoding, the standard aspect ratio of 16:9 (4:3 is second best) and do not compress the video. Supplementary information is not copyedited, so please ensure that it is clearly and succinctly presented, and that the style and terminology conform to the rest of the manuscript, with any tracked-changes or Review mark-ups removed.

Please note: We do not allow the resupplying of Supplementary Information files for style reasons after a paper has been exported in production, unless there is a serious error that affects the science which would lead to a formal correction once the paper has been published. In these cases we would make an exception and replace the file; however there are very few instances where a Supplementary Information file would be corrected post publication.

Subject Ontology

During submission, choosing the most relevant and specific subject terms from our subject ontology will ensure that your article will be more discoverable and will appear on appropriate subject specific pages on nature.com, in addition to the journal's own pages. Your article should be indexed with at least one, and up to four unique subject terms that describe the key subjects and concepts in your manuscript. Click [here](#) for help with this.

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.

Language Editing

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.

Authors who are not native speakers of English sometimes receive negative comments from reviewers about the language and grammar in their manuscripts, which can contribute to a paper being rejected. To reduce the possibility of such problems, we strongly encourage authors to take at least one of the following steps.

- Have your manuscript reviewed for clarity by a colleague for whom English is his/her first (“native”) language.
- Visit the [English language tutorial](#) which covers the common mistakes when writing in English.
- Use a professional language editing service where editors will improve the English to ensure that your meaning is clear, and who will identify problems that require your attention. Two such services are provided by our affiliates [Nature Research Editing Service](#) and [American Journal Experts](#).

Please note that the use of a language editing service is at the authors’ own expense and does not guarantee that the article will be selected for peer review or accepted.

HOW TO SUBMIT

Pre-submission Enquiries

The Editor-in-Chief will accept pre-submission enquiries but can usually only provide general comments about whether the topic is within the scope of the journal. Pre-submission enquiries should be sent to the editorial office: E-mail spinalcord@iscos.org.uk. Authors are encouraged to submit manuscripts in full. Authors will typically be told within 2-5 days of submission if the manuscript is not suitable for the journal. This allows authors to submit elsewhere without delay. A decision on manuscripts that are sent out for peer review is typically communicated to authors within 20-40 days of submission, but this depends very much on our peer reviewers and does not include the time taken to ensure manuscripts comply with the Author Guidelines.

Online Submission

We only accept manuscript submissions via [our online manuscript submission system](#). Before submitting a manuscript, authors are encouraged to consult both our [Editorial Policies](#) and the [Submission Instructions](#) for our online manuscript submission system. Authors need to [register for an account](#) with our online manuscript system if they have not already done so. Authors will be able to monitor the status of their manuscripts online throughout the editorial process.

Initial Quality Check –Corresponding Author Responsibility

The Corresponding Author is responsible for responding to emails sent from the manuscript tracking system starting with the Initial Quality Check as follows:

1. Once the author clicks ‘Approve Submission’ the manuscript is queued for an initial quality check
2. The Editorial Office will then carry out the checks and if any changes need to be made the Corresponding Author (only) receives an email* with instructions to make technical amendments (e.g. layout, page or line numbering, completeness and format of references) and a link to access their manuscript
3. Having made the required changes to their manuscript the Author should then click the link to access their submission and upload the amended manuscript.
4. The manuscript is checked again by the Editorial Office but may be returned at least once more before it is ready to be sent to review.

***IMPORTANT:** A common error occurs when the Corresponding Author doesn’t receive the email but instead logs onto the system to see the progress of their submission and sees the following:

Author Tasks

- Author Instructions
- Submit Manuscript
-  Awaiting Author Approval # SC-2017-

If the author clicks on the link above they see the following prompt:

There are action items pending. Please click on the links next to the arrows. 

Manuscript Workflow Tasks

-  Continue Halted Submission

As a result, the Author then resubmits without making the required changes. This means that the file will be returned to them again. If the Author continues to do this without making the changes their submission will be withdrawn. In order to avoid this, it is essential that the Corresponding Author receives and follows the instructions in the Quality Check email. It is advisable that authors check their institution does not block our system generated emails and they should always check their junk/spam folders.

Summary of the Editorial Process

- The author submits a manuscript and receives a tracking number
- The editorial office performs an initial quality check on the manuscript to ensure that the paper is formatted correctly

- The Editor-in-Chief scans the manuscript and decides whether to send out to review, if necessary after checking with one or more of the Associate Editors or members of the Editorial Board. If the decision is not to send the manuscript for review, the Editor-in-Chief contacts the author with the decision
- If the Editor-in-Chief decides the paper is within the Journal's remit, the Editor-in-Chief will select and assign reviewers, or ask one of the Associate Editors to take responsibility for the manuscript, in which case the Associate Editor will select and assign reviewers.
- Reviewers are given 14 days from acceptance to submit their reports. Once the required number of reports are submitted the Editor-in-Chief will make a final decision based on the comments received and the recommendation for publication of the reviewers and the Associate Editor (if one was assigned)

Authors are able to monitor the status of their paper throughout the peer review process

Peer Review

To expedite the review process, only papers that seem most likely to meet editorial criteria (in line with journal scope; innovativeness and quality of the research; relevance to persons with spinal cord injury, clinicians and/or researchers) are sent for external review. Papers judged by the Editor-in-Chief to be of insufficient general interest or otherwise inappropriate are rejected promptly without external review.

Manuscripts sent out for peer review are evaluated by at least one independent reviewer (often two or more). Authors are welcome to suggest independent reviewers to evaluate their manuscript, however these must not be colleagues who are close associates, collaborators, or family members. By policy, referees are not identified to the authors, except at the request of the referee.

Reviewer selection is critical to the publication process, and we base our choice on many factors, including expertise, reputation, and specific recommendations. A reviewer may decline the invitation to evaluate a manuscript where there is a perceived conflict of interest (financial or otherwise). Once the required number of reviews is received, the Editor-in-Chief then makes a decision based on the reviewers' evaluations and Associate Editor input, when appropriate:

- **Accept** – The manuscript is appropriate to be accepted as it stands
- **Minor or Major revision** – In cases where the editor determines that the authors should be able to address the referees' concerns in six months or less the editor may request a revised manuscript that addresses these concerns. The revised version is normally sent back to the original referees for re-review. The decision letter will specify a deadline for receipt of the revised manuscript and a link via which the author should upload to the online system
When submitting a revision authors are asked to upload (1) A rebuttal letter, indicating point-by-point how the comments raised by the reviewers have been addressed. (Typos and other minor errors pointed out by the reviewers need not be addressed, but the changes should be made in the manuscript). If you disagree with any of the points raised, please provide adequate justification in your letter. (2) A marked-up version of the manuscript that highlights changes made in response to the reviewers' comments in order to aid the Editors and reviewers. (3) A 'clean' (non-highlighted) version of the manuscript.
- **Reject with the option to resubmit** – In cases where the referees' concerns are very serious and appear unlikely to be addressed within six months, the editor will normally reject the manuscript. If the editor feels the work is of potential interest to the journal, however, he or she may express interest in seeing a future resubmission. The resubmitted manuscript may be sent back to the original referees or to new referees, at the editor's discretion. If the author decides to resubmit, the updated version of the manuscript must be submitted online as a new manuscript and should be accompanied by a cover letter that includes a point-by-point response to referees' comments and an explanation of how the manuscript has been changed.
- **Reject outright** – Typically on grounds of specialist interest, lack of novelty, insufficient conceptual advance or major technical and/or interpretational problems.

POST-ACCEPTANCE

Once a manuscript is accepted and typeset, the corresponding author will be prompted to complete and sign a license to publish form on behalf of all authors. **Failure to complete the form will result in delay of publication.**

Springer Nature does not require authors of original research papers to assign copyright of their published contributions. Authors grant Springer Nature an exclusive licence to publish, in return for which they can re-use their papers in their future printed work. Springer Nature's [author licence page](#) provides details of the policy.

The corresponding author will be prompted to choose *Standard* or *Open Access* publication.

Standard Publication

Manuscripts published under the standard method of publication will be behind a paywall, requiring readers to pay to view the article, either via their institutional or personal subscription or on a pay-per-view basis. Authors will need to complete the standard Licence to Publish form when prompted. Government employees from the United States, Canada and the UK are required to complete the license to publish form relevant to them.

Open Access Publication (Gold Open Access)

Authors can opt to pay an article processing charge (APC) for their article to be made open access online immediately upon publication. Open access articles are published under a CC BY Creative Commons license, which allows authors to retain copyright to their work while making it open to readers.

The cost for open access publication in *Spinal Cord* is £3,190/ \$4,790/ €3,690 (VAT or local taxes will be added where applicable).

ISCoS members receive a 10% discount on the open access fee. Please tick the box and include your membership number in the space provided on the Article Processing Charge form.

If authors opt to publish via the open access route then the corresponding author will receive instructions to complete an open access License to Publish (LTP) form on behalf of all authors, and will be contacted to arrange payment of the associated Article Processing Charge (APC). This will occur after acceptance and typesetting of the article has taken place.

Please note this process must be completed prior to publication and failure to do so will result in delay of publication.

Government employees from the United States, Canada and the UK are required to complete the government open access license to publish form relevant to them.

Please note with regards to payment that usual credit terms are 30 days from receipt of invoice. Failure to pay your invoice within the stated credit term may result in the Open Access status of the paper being rescinded, with the paper being placed behind the paywall. You may also be subject to such penalties as restrictions on your ability to publish with Springer Nature in the future, involvement of a third party debt collection agency and legal proceedings.

To facilitate self-archiving Springer Nature deposits open access articles in PubMed Central and Europe PubMed Central. Authors are also permitted to post the final, published PDF of their article on a website, institutional repository or other free public server, immediately on publication. Visit our [open research site](#) for further information about licenses, APCs, and our free OA [funding support service](#).

Compliance with Open Access mandates

Springer Nature's Open Access journals allow authors to comply with all funders' Open Access policies worldwide. Authors may need to take specific actions to achieve compliance with funder and institutional Open Access mandates.

Learn more about [Open Access compliance](#)

Waiver of institutional Open Access policies

Please note that Harvard University FAS, Princeton, University of Hawaii at Manoa, California Institute of Technology (Caltech), the University of Rhode Island and the Georgia Institute of Technology have enacted Open Access policies that conflict with our own policy for articles published via the subscription route. If any corresponding or contributing authors are from these institutions, you will need to provide a waiver from the institution of every affected author, which can be obtained from the institution. This waiver should be submitted along with your final files. This requirement does not apply to articles published via the open access route.

Self-archiving and manuscript deposition (Green Open Access)

Authors of original research articles are encouraged to submit the authors' version of the accepted paper (the unedited manuscript) to a repository for public release six months after publication. Springer Nature also offers a free, opt-in Manuscript Deposition Service for original research articles in order to help authors fulfil funder and institutional mandates.

Learn more about [self-archiving and manuscript deposition](#).

E-Proofs

The Springer Nature e-proofing system enables authors to remotely edit /correct their article proofs. The corresponding author will receive an e-mail containing a URL linking to the e-proofing site. Proof corrections must be returned within 48 hours of receipt. Failure to do so may result in delayed publication. Extensive corrections cannot be made at this stage. For more information and instructions on how to use the e-proofing tool please see [here](#).

Advance Online Publication

The final version of the manuscript is published online in advance of print (AOP). AOP represents the official version of the manuscript and will subsequently appear unchanged, in print.

Offprints

Offprints may be ordered on the form accompanying the proofs. Charges are necessarily higher if orders for offprints are received after the issue has gone to press.

Content Sharing

In order to aid the dissemination of research swiftly and legally to the broader community, we are providing all authors with the ability to generate a unique shareable link that will allow anyone to read the published article. If you have selected an Open Access option for your paper, or where an individual can view content via a personal or institutional subscription, recipients of the link will also be able to download and print the PDF.

As soon as your article is published, you can generate your shareable link by entering the DOI of your article here: <http://authors.springernature.com/share>

We encourage you to forward this link to your co-authors, as sharing your paper is a great way to improve the visibility of your work. There are no restrictions on the number of people you may share this link with, how many times they can view the linked article or where you can post the link online. More information on Springer Nature's commitment to content sharing is available [here](#).

EDITORIAL POLICIES

Researchers should conduct their research – from research proposal to publication – in line with best practices and codes of conduct of relevant professional bodies and/or national and international regulatory bodies.

Spinal Cord and Springer Nature are committed to upholding the integrity of the scientific record. As a member of the [Committee on Publication Ethics](#) (COPE), *Spinal Cord* abides by COPE's principles on how to deal with potential acts of misconduct, which includes formal investigation of all perceived transgressions.

Authorship

Requirements for authorship for all categories of articles should conform to the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals," developed by the [International Committee of Medical Journal Editors](#) (ICMJE).

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:

1. Conceived and/or designed the work that led to the submission, acquired data, and/or played an important role in interpreting the results.
2. Drafted or revised the manuscript for important intellectual content.
3. Approved the final version.
4. Agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. In addition to being accountable for the parts of the work he or she has done, an author should be able to identify which co-authors are responsible for specific other parts of the work. In addition, authors should have confidence in the integrity of the contribution.

Contributions by individuals who made direct contributions to the work but do not meet all of the above criteria should be noted in the Acknowledgments section of the manuscript. Medical writers and industry employees can be contributors. Their roles, affiliations, and potential conflicts of interest should be included in the author list or noted in the Acknowledgments. Signed statements from any medical writers or medical editors declaring that they have given permission to be named as an author, as a contributor, or in the Acknowledgments section is also required. Failure to acknowledge these contributors can be considered inappropriate, which conflicts with the journal's editorial policy.

Changes to Authorship

It is the corresponding author's responsibility to ensure that the author list is correct, both in the manuscript file upload and in the online submission form. Any changes to an author list, including the removal or addition of any authors, between initial submission and acceptance will require written agreement from all authors should the manuscript be considered for publication. New authors must also confirm they fully comply with the journal's authorship requirements.

Changes to authorship (addition or removal) will not be allowed once the manuscript has been accepted for publication.

Correspondence with the Journal

One author is designated the contact author for matters arising from the manuscript (e.g. material requests and technical comments). It is this author's responsibility to inform all co-authors of matters arising and to ensure such matters are dealt with promptly. Before submission, the corresponding author must ensure that all authors are included on the author list, the author order has been agreed upon by all authors, and all authors are aware that the manuscript is being submitted. After acceptance for publication, the corresponding author will receive an email containing a link to the e-proofing site and is responsible for checking the proofs, answering any queries and coordinating any corrections with the co-authors.

Anonymity and Confidentiality

Editors, authors and reviewers are required to keep confidential all details of the editorial and peer review process for submitted manuscripts. The peer review process is confidential and conducted anonymously. All details about submitted manuscripts are kept confidential and no comments are issued to outside parties or organizations about manuscripts under consideration or if they are rejected. Editors are restricted to making public comments on a published article's content and their evaluation.

Upon accepting an invitation to evaluate a manuscript, reviewers must keep the manuscript and associated data confidential, and not redistribute them without the journal's permission. If a reviewer asks a colleague to assist in assessing a manuscript, confidentiality must be ensured and their names must be provided to the journal with the final peer review report.

We ask reviewers not to identify themselves to authors without the editor's knowledge. If they wish to reveal their identities while the manuscript is under consideration, this should be done via the editor; if this is not practicable, we ask authors to inform the editor as soon as possible after the reviewer has revealed their identity. Our own policy is to neither confirm nor deny any speculation about reviewers' identities, and we encourage reviewers to adopt a similar policy.

We deplore any attempt by authors to confront reviewers or try to determine their identities. Reviewers should be aware that it is our policy to keep their names confidential and that we do our utmost to ensure this confidentiality. We cannot, however, guarantee to maintain this confidentiality in the face of a successful legal action to disclose identity.

Regardless of whether a submitted manuscript is eventually published, correspondence with the journal, referees' reports, and other confidential material must not be published, disclosed, or otherwise publicized without prior written consent.

Competing Interests

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. The corresponding author is responsible for submitting a competing interests statement on behalf of all authors of the paper. This statement must be included within the article after the References section listed under 'Competing Interests'.

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.
- **Employment:** Recent (while engaged in the research project), present or anticipated employment by any organization that may gain or lose financially through this publication. This includes positions on an advisory board, board of directors, or other type of management relationship.
- **Personal financial interests:** Stocks or shares in companies that may gain or lose financially through publication; consultation fees or other forms of remuneration from organisations that may gain or lose financially; patents or patent applications whose value may be affected by publication.
- **Patents:** Holding, or currently applying for, patents, relating to the content of a manuscript; receiving reimbursement, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript.

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.

The statement included in the submission must contain an explicit and unambiguous description of any potential competing interests, or lack thereof, for any of the authors as it relates to the subject of the report. Examples include

- **Competing interests.**
The authors declare no competing interests.
- **Competing interests.**
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 competing interests.

Neither the precise amount received from each entity nor the aggregate income from these sources needs to be provided.

Non-financial interests that authors may like to disclose include:

- a close relationship with, or a strong antipathy to, a person whose interests may be affected by publication of the article,
- an academic link or rivalry with someone whose interests may be affected by publication of the article,
- membership in a political party or special interest group whose interests may be affected by publication of the article, or
- a deep personal or religious conviction that may have affected what the author wrote and that readers should be aware of when reading the article.
- a series of prior publications/presentations in which the author has defended and/or recommended a particular test, intervention or management policy which is of direct relevance to the topic of the submitted manuscript.

Reviewers approached for assessment of submitted articles are also requested to declare conflicts of interest that may impede on their judgment of that article. This specifically includes competing research in the same area that could be negatively affected by publication of the submitted article.

Clinical Trials

All clinical trials commencing after 1st January 2018 must be prospectively registered in a public registry prior to the commencement of the trial; whilst clinical trials prior to 2018 must be registered in a public registry prior to submission. In both cases the trial registry number must be included in the manuscript and provided upon submission. The journal follows the trials registration policy of the [ICMJE](#) and considers only trials that have been appropriately registered before submission, regardless of when the trial closed to enrolment. 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:

- 1) [Clinicaltrials.gov](#) the registry sponsored by the United States National Library of Medicine
- 2) the [International Standard Randomized Controlled Trial Number Registry](#)
- 3) the [Cochrane Renal Group Registry](#)
- 4) the [European Clinical Trials Database](#)

Randomised Controlled Trials (RCTs) must adhere to the [CONSORT statement](#), (CONsolidated Standards Of Reporting Trials) and submissions must be accompanied by a completed CONSORT checklist (uploaded as a related manuscript file).

Reporting guideline

Reports of studies must adhere to the reporting guidelines as outlined by the [Equator Network](#). 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.
- the [STROBE](#) guidelines for observational studies.
- the [PRISMA](#) guidelines for systematic reviews.
- the [STARD](#) guidelines for diagnostic/prognostic studies.
- the [ARRIVE](#) guidelines for pre-clinical animal studies.
- The SCRIBE guidelines for Single-Case behavioural interventions

The "Extensions" button on EQUATOR's first page should be explored for specific guidelines for intervention types and report components that are useful instead of or in addition to the main checklist.

Springer Nature endorses the toolkits and guidelines produced by the [Committee on Publication Ethics](#) (COPE).

Informed Consent

Publication of identifiable images from human research participants (or a parent or legal guardian for participants under the age of 16 years) must be accompanied by a statement attesting that the authors have obtained consent to publication of the images. If the participant is deceased, consent must be sought from the next of kin of the participant. In all such instances, all reasonable measures must be taken to protect patient anonymity. Black bars over the eyes are not acceptable means of anonymisation. In certain cases, the journal may insist upon obtaining evidence of informed consent from authors. Images without appropriate consent must be removed from publication.

The same rules apply to qualitative research - if quoted text may unmask the speaker, his or her permission must be sought to do so.

Human and Other Animal Experiments

Research involving human subjects, human material, or human data must have been performed in accordance with the Declaration of Helsinki and must have been approved by an appropriate ethics committee. A statement detailing this, including the name of the ethics committee/institutional review board and the reference number where appropriate, must appear in the section titled – “Statement of Ethics”. In addition, the following statement needs to be added – “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). All other information related to ethics should be included in the Methods section of the main paper.

For primary research manuscripts reporting experiments on live vertebrates and/or higher invertebrates, the corresponding author must confirm that all experiments were performed in accordance with relevant guidelines and regulations. The manuscript must include in the Supplementary Information (methods) section (or, if brief, within of the print/online article at an appropriate place), a statement identifying the institutional and/or licensing committee approving the experiments, and any relevant details regarding animal welfare. Sex and other characteristics of animals that may influence results must be described. Details of housing and husbandry must be included where they are likely to influence experimental results

Biosecurity Policy

The Editor-in-Chief may seek advice about submitted papers not only from technical reviewers but also on any aspect of a paper that raises concerns. These may include, for example, ethical issues or issues of data or materials access. Occasionally, concerns may also relate to the implications to society of publishing a paper, including threats to security. In such circumstances, advice will usually be sought simultaneously with the technical peer-review process. As in all publishing decisions, the ultimate decision whether to publish is the responsibility of the Editor-in-Chief of *Spinal Cord*.

Reproducibility

Spinal Cord requires authors of papers to include in their manuscripts relevant details about several elements of experimental and analytical design. This initiative aims to improve the transparency of reporting and the reproducibility of published results, focusing on [elements of methodological information](#) that are frequently poorly reported. Authors being asked to resubmit a manuscript will be asked to confirm that these elements are included by filling out a [checklist](#) that will be made available to the editor and reviewers.

Data Availability and Policy

Spinal Cord adheres to [Springer Nature’s Data Policy Type 3](#). This means that a submission to *Spinal Cord* implies that materials described in the manuscript, including all relevant raw data, **will be freely available to any researcher wishing to use them** for non-commercial purposes, without breaching participant confidentiality. It also means that a **Data Availability Statement** is required by the journal. Please see the [Data Availability and Policy](#) page on the journal website for more information.

Data in common with other publications

Any data that are in common with another publication must be clearly stated both in the covering letter and in the manuscript. The prior publication of an abstract in conference proceedings will not preclude publication but needs to be stated in the covering letter

Sequences, Structures and “Omics”

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.

Authors of papers describing structures of biological macromolecules must provide experimental data upon the request of Editor-in-Chief if they are not already freely accessible in a publicly available database such as [ProteinDataBank](#), [Biological Magnetic Resonance Databank](#), or [Nucleic Acid Database](#).

Misconduct

Springer Nature takes seriously all allegations of potential misconduct. As a member of the [Committee on Publication Ethics](#) (COPE), *Spinal Cord* will follow the COPE guidelines outlining how to deal with cases of suspected misconduct. As part of the investigation, the journal may opt to do one or more of the following:

- suspend review or publication of a paper until the issue has been investigated and resolved;
- request additional information from the author, including original data or images or animal committee, ethics committee or IRB approval;
- contact Editors and publishers of other journals if there are related papers by the authors which may be affected;
- forward concerns to the authors’ employers or person responsible for research governance at the authors’ institutions;
- refer the matter to other authorities or regulatory bodies (for example, the Office of Research Integrity in the US or the General Medical Council in the UK); or
- submit the case to COPE in an anonymised form for additional guidance on resolution.

Please note that, in keeping with the journal’s policy on the confidentiality of peer review, if sharing of information with third parties is necessary, disclosure will be made to only those who the Editor believes may have information that is pertinent to the case, and the amount of information will be limited to the minimum required.

Duplicate Publication

Papers must be original and not published or submitted for publication elsewhere. This rule also applies to earlier non-English language publications. Springer Nature allows and encourages prior publication on recognized community preprint servers for review by other scientists before formal submission to a journal. The details of the preprint server concerned and any accession numbers should be included in the cover letter accompanying manuscript submission. This policy does not extend to preprints available to the media or that are otherwise publicized outside the scientific community before or during the submission and consideration process.

Springer Nature also allows publication of meeting abstracts before the full contribution is submitted. Such abstracts should be included with the journal submission and referred to in the cover letter accompanying the manuscript. Again, this policy doesn't extend to meeting abstracts and reports available to the media or which are otherwise publicised outside of the scientific community during the submission and consideration process.

Plagiarism

Plagiarism is when an author attempts to pass off someone else's work as his or her own. Duplicate publication, sometimes called self-plagiarism, occurs when an author reuses substantial parts of his or her own published work without providing the appropriate references. This can range from getting an identical paper published in multiple journals, to 'salami-publishing', where authors add small amounts of new data to a previous paper. Plagiarism can be said to have clearly occurred when large chunks of text have been cut-and-pasted. Minor plagiarism without dishonest intent is relatively frequent, for example, when an author reuses parts of an introduction from an earlier paper. Even this can be problematic, ethically and legally, specifically when the author does not own the copyright to the earlier publication(s). Journal editors judge any case of which they become aware (either by their own knowledge of and reading about the literature, or when alerted by referees) on its own merits.

Springer Nature is a member of Similarity Check (formerly CrossCheck), a multi-publisher initiative used to screen published and submitted content for originality. *Spinal Cord* uses Similarity Check to detect instances of overlapping and similar text in submitted manuscripts. To find out more about CrossCheck visit <https://www.crossref.org/services/similarity-check/>

If a case of plagiarism is suspected before a paper is published, the Editor will require the author to explain (lack of) differences between previous papers and the current manuscript, and may require rewrites of text as a condition for publication.

If a case of plagiarism comes to light after a paper is published, the Journal will conduct a preliminary investigation, utilising the guidelines of the [Committee on Publication Ethics](#). If plagiarism is proven, the Journal will contact the author's institute and funding agencies as appropriate. The paper containing the plagiarism may also be formally retracted or subject to correction.

Data Fabrication & Falsification

Falsification is the practice of altering research data with the intention of giving a false impression. This includes, but is not limited to, manipulating images, removing outliers or "inconvenient" results, or changing, adding or omitting data points. Fabrication is the practice of inventing data or results and recording and/or reporting them in the research record. Data falsification and fabrication call into question the integrity and credibility of data and the data record, and as such, they are among the most serious issues in scientific ethics.

Some manipulation of images is allowed to improve them for readability. Proper technical manipulation includes adjusting the contrast and/or brightness or colour balance if it is applied to the complete digital image (not parts of the image). The author should notify the Editor in the cover letter of any technical manipulation. Improper technical manipulation refers to obscuring, enhancing, deleting and/or introducing new elements into an image. See Image Integrity & Standards below for more details.

Selective omission of data points (e.g. outliers) is also permissible, provided the authors describes in the Methods what criteria were used for the omissions, and why. Sensitivity analysis with and without omitted data may be necessary.

Permissions

If a table or figure has been published previously, the authors must obtain written permission to reproduce the material in both print and electronic formats from the copyright owner and submit it with the manuscript. This also holds true for illustrations and other materials taken from previously published works not in the public domain. The original source should be cited in the figure caption or table footnote. Permission to reproduce material can usually be obtained through the [Copyright Clearance Center](#).

Image Integrity and Standard

Images submitted with a manuscript for review should be minimally processed (for instance, adding 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.
- Images gathered at different times or from different locations should not be combined into a single image, unless it is stated that the resultant image is a product of time-averaged data or a time-lapse sequence. If juxtaposing images is essential, the borders should be clearly demarcated in the figure and described in the legend.
- Touch-up tools, such as cloning and healing tools in Photoshop, or any feature that deliberately obscures manipulations, are to be avoided.
- Processing (such as changing brightness and contrast) is appropriate only when it is applied equally across the entire image and is applied equally to controls. Contrast should not be adjusted so that data disappear. Excessive manipulations, such as processing to emphasize one region in the image at the expense of others (for example, through the use of a biased choice of threshold settings), is inappropriate, as is emphasizing experimental data relative to the control.

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 figure in Supplementary Materials. 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.
- Cropped gels in the paper must retain important bands.
- High-contrast gels and blots are discouraged, as overexposure may mask additional bands. Authors should strive for exposures with grey backgrounds. Immunoblots should be surrounded by a black line to indicate the borders of the blot if the background is faint.
- For quantitative comparisons, appropriate reagents, controls and imaging methods with linear signal ranges should be used.

Microscopy adjustments should be applied to the entire image. Threshold manipulation, expansion or contraction of signal ranges and the altering of high signals should be avoided. If 'pseudo-colouring' and nonlinear adjustment (for example 'gamma changes') are used, this must be disclosed. Adjustments of individual colour channels are sometimes necessary on 'merged' images, but this should be noted in the figure legend. We encourage inclusion of the following with the final revised version of the manuscript for publication:

- 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.
- The display lookup table (LUT) and the quantitative map between the LUT and the bitmap should be provided, especially when rainbow pseudo-colour is used. It should be stated if the LUT is linear and covers the full range of the data.
- 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).

Authors should state the measured resolution at which an image was acquired and any downstream processing or averaging that enhances the resolution of the image.

Communication with the Media

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, a press release will be compiled by Springer Nature and 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 through their institution's press offices), but they must strictly adhere to our press embargo and are advised to coordinate their own publicity with our [press office](#).

Communication Between Scientists

We encourage communication between scientists. Authors can communicate with other researchers as much as they wish, whether on a recognized community preprint server, by discussion at scientific meetings or by online collaborative sites such as wikis, but authors must not discuss manuscripts with the press prior to publication (beyond a formal presentation, if at a conference).

Pre- and Post-Submissions

Authors are welcome to post pre-submission versions or the original submitted version of the manuscript on a personal blog, a collaborative wiki or a recognized preprint server (such as [ArXiv](#) or [bioRxiv](#)). Preprint posting is not considered prior publication and will not jeopardize consideration at *Spinal Cord*. Authors posting preprints are asked to respect our [policy on communications with the media](#).

Our policy on posting and citation of preprints of primary research manuscripts is summarized below:

- The original submitted version of the manuscript (the version that has not undergone peer review) may be posted at any time. Authors should disclose details of preprint posting, including DOI, upon submission of the manuscript to *Spinal Cord*.
- Preprints may be cited in the reference list as below:
Babichev, S. A., Ries, J. & Lvovsky, A. I. Quantum scissors: teleportation of single-mode optical states by means of a nonlocal single photon. Preprint at <http://arxiv.org/quantph/0208066> (2002).
- If you have posted a preprint on any preprint server, please ensure that the preprint details are updated with a publication reference, including the DOI and a URL to the published version of the article on *Spinal Cord's* website.
- For subscribed content, the author accepted version of the manuscript, following the review process, may only be posted 6 months after the paper is published in *Spinal Cord*, consistent with our [self-archiving policy](#). A publication reference and URL to the published version on *Spinal Cord's* website must be provided on the first page of the postprint. The published version — copyedited and in the *Spinal Cord* format — may not be posted on any website or preprint server. However, authors are encouraged to obtain a free ShareIt link of their paper, which can be posted online and allows read-only access.
Please note that the Author's Accepted Manuscript may not be released under a Creative Commons license. For our Terms of Reuse of archived manuscripts please [click here](#).
- For open access content published under a creative commons license, authors can replace the submitted version with the final published version at publication as long as a publication reference and URL to the published version on *Spinal Cord's* website are provided.

Correction and Retraction Process

Content published as Advance Online Publication (AOP) is final and cannot be amended. The online and print versions are both part of the published record hence the original version must be preserved and changes to the paper should be made as a formal correction. If an error is noticed in an AOP article, a correction should accompany the article when it publishes in print. An HTML (or full-text) version of the correction will also be created and linked to the original article. If the error is found in an article after print publication the correction will be published online and in the next available print issue.

All requests for corrections will be assessed by our Editors to see if they qualify based on the following two criteria: 1) if the error impacts the indexing of the article; and 2) if the error impacts the scientific integrity of the article. Decisions about corrections are made by the Editor (sometimes with peer-reviewers' advice) and this sometimes involves author consultation. Requests to make corrections that do not affect the paper in a significant way or impair the reader's understanding of the contribution (a spelling mistake or grammatical error, for example) are not considered. Updates to the original article are only allowed in exceptional cases.

Corrections will appear as a new article (with its own DOI) and will bi-directionally link to the original article. Please note the following categories of corrections online versions of peer reviewed content:

- **Correction.** Notification of an important error made by the author or journal that affects the publication record or the scientific integrity of the paper, together with the correct information.
- **Retraction.** Notification of invalid results. Where a paper is retracted, a statement will be published that includes a full justification for the retraction. The original article will be marked as retracted, but remain available to readers.

- **Editorial Note of Concern.** Where significant issues have been raised, but the outcome of an official investigation is delayed, the editors may publish a note of concern to alert readers. In cases where co-authors disagree about a correction/retraction, the editors will take advice from independent peer-reviewers and impose the appropriate correction, noting the dissenting author(s) in the text of the published version.

If there is suspicion of misconduct, the journal will carry out an investigation following COPE guidelines. Following an investigation, if the allegation raises valid concerns, the author will be contacted and given an opportunity to address the issue. If misconduct is established beyond reasonable doubt, this may result in the Editor implementing one of the following measures:

- If the article is still under consideration, it may be rejected and returned to the author.
- If the article has already been published online, depending on the nature and severity of the infraction, either an erratum will be published alongside the article or, in severe cases, complete retraction of the article will occur. The reason for the erratum or retraction must be given.
- In either case, the author's institution or funding agency may be informed.

In cases where co-authors disagree about a correction or retraction, the editors will take advice from independent peer-reviewers and impose the appropriate measure, noting the dissenting author(s) in the text of the published version.

Contesting a Decision

Authors may contest an editorial decision if they believe the Editor-in-Chief or reviewers have misunderstood some aspects of their manuscript or the importance of their manuscript. Authors are not encouraged to contest decisions if they disagree with decisions based on publication priorities. If a decision is contested, then the decision will be independently reviewed by at least 3 individuals selected from Associated Editors, members of the Editorial Board or independent reviewers with specific expertise on the topic.

Resubmitting rejected papers

Rejected papers without the option to resubmit cannot be resubmitted as new papers unless they contain additional data.

FURTHER INFORMATION

For inquiries related to submission requirements, please contact the [editorial office](#). For inquiries related to advertising, subscriptions, permissions, papers in production or publishing a supplement, please contact the [publisher's office](#). For inquiries related to publication agreements and publication charges, please contact [author services](#).