Manuscript Submission Guidelines: 
The Journal of Hand Surgery (European Volume)

1. Peer review and editorial policy
2. Article types
   2.1 Randomized controlled trials
   2.2 Ethical standards
3. How to submit your manuscript
4. Journal contributor’s publishing agreement
5. Declaration of conflicting interests policy
6. Patient confidentiality and informed consent
7. Acknowledgments
   7.1 Funding acknowledgement
8. Permissions
9. Presentation
   9.1 File types
   9.2 Manuscript preparation
      9.2.1 Keywords and abstracts: Helping readers find your article online
      9.2.2 Guidelines for submitting artwork, figures and other graphics
      9.2.3 Guidelines for submitting supplemental files
      9.2.4 English language editing services
9.3 Journal style
   9.3.1 Style for scientific papers (excluding case reports)
   9.3.2 Style for short report letters
9.4 Reference style for all submissions
10. After acceptance
    10.1 Proofs
    10.2 E-Prints and complimentary copies
    10.3 SAGE production
    10.4 OnlineFirst publication
11. Further information

The aim of the Journal of Hand Surgery (European Volume) is to develop and maintain interest in Hand Surgery and related fields insofar as they affect the hand. Any opinions expressed or policies advocated do not necessarily reflect the opinions or policies of the Editorial Board or the British Society for Surgery of the Hand (BSSH).

Original contributions are welcomed from any country and the authors do not have to be members of the Society. However the contribution must be written in English with British spelling. Contributions are accepted on the understanding that they have not been submitted simultaneously to another journal in the English language and have not been published elsewhere. Papers that have been published or submitted for publication in another language will be considered only in exceptional circumstances, and only when the previous publication or submission is disclosed by the authors on submission to JHSE. Contributions will be the property of the journal unless agreed otherwise before publication.

1. Peer review and editorial policy
The journal's policy is to obtain at least two independent reviews of each full length article and at least one for short report letters. We use a double-blind reviewing process in which authors’ and reviewers’ identities are concealed. Our reviewers are encouraged to provide substantive, constructive reviews that provide suggestions for improving the work and distinguish between mandatory and non-mandatory recommendations.

The Editors reserve the right to make editorial and literary corrections. Major rearrangements or corrections will be made only with the approval of authors. In most cases they will be offered as recommendations to permit authors to rewrite their material in a way that is acceptable to the journal.
2. Article types

We accept full length articles, review articles and short report letters for peer review. All case reports and technical tips should be submitted as short report letters and all types of submissions should conform precisely to the style and format set out below (9.3 Journal Style). Review articles should generally be written, or co-written, by recognised experts in the field and must be specifically relevant to hand surgery. If you are unsure whether your review article topic is suitable, please send the title and brief details to editor@journalofhandsurgery.com before submission.

Letters about published papers, general correspondence, dates of meetings, and queries should be sent by email to editor@journalofhandsurgery.com

2.1 Randomized controlled trials
Randomized controlled trials should conform to the CONSORT recommendations, see http://www.consort-statement.org/consort-statement/overview0/

2.2 Ethical standards
We accept manuscripts that report human and/or animal studies for publication only if it is made clear that investigations were carried out to a high ethical standard. Studies in humans which might be interpreted as experimental (e.g. controlled trials) should conform to the Declaration of Helsinki http://www.wma.net/en/30publications/10policies/b3/index.html and typescripts must include a statement on the Title Page that the research protocol was approved by the appropriate ethical committee. In line with the Declaration of Helsinki, we encourage authors to register their clinical trials (at http://clinicaltrials.gov or other suitable databases identified by the ICMJE, http://www.icmje.org/publishing_10register.html). If your trial has been registered, please state this on the Title Page. When reporting experiments on animals, indicate on the Title Page which guideline/law on the care and use of laboratory animals was followed.

3. How to submit your manuscript

The Journal of Hand Surgery (European Volume) has a fully web-based system for the submission and review of manuscripts. You will find full details of how to submit material using our online system: http://jhse.edmgr.com

Before submitting your manuscript, please ensure that you carefully read and adhere to all the guidelines and instructions to authors provided in this document. Manuscripts not conforming to these guidelines will be returned. Keep copies of all submitted material. We cannot accept responsibility for loss of manuscripts or illustrations.

All submissions must be accompanied by a letter of submission which confirms that:

- All the authors have been actively involved in the planning and enactment of the study, and have also assisted with the preparation of the submitted article. See http://www.icmje.org/ethical_1author.html# for definition of authorship and ensure that all authors meet the criteria.

- The article has not been submitted elsewhere.

- The references have/have not been downloaded from MedLine or an equivalent accurate database. (The use of downloaded reference details is encouraged as this greatly improves the accuracy of the reference list)
The references have been checked and are correct.

The authors have read the Submission Guidelines and the paper conforms to this Guide in all respects.

The name of the corresponding author should be printed at the foot of the submission letter in lieu of a signature.

4. Journal contributor’s publishing agreement
In order for us to ensure maximum dissemination and copyright protection of material published in the journal, copyright must be explicitly transferred from author to the British Society for Surgery of the Hand.

You will be invited to complete a copyright agreement if your submission is accepted for publication. The copyright transfer agreement may be downloaded from http://jhse.edmgr.com.

Copies are also available from the publisher or the editorial office. A copy of this agreement must be signed by the principal author before any paper can be published. We assure you that no limitation will be put on your personal freedom to use material contained in the paper without requesting permission, provided acknowledgement is made to the journal as the original source of publication. Signing the copyright form also certifies that you have provided a ‘Declaration of Conflicting Interests’ (see below).

5. Declaration of conflicting interests
All submissions must be accompanied by a declaration of conflicting interests. If you are unsure if you have a conflict of interest please state your situation and indicate that you are unclear if this constitutes a conflict. The Editor-in-Chief will then advise whether or not the declaration should be included in your article. The declaration should be included on the Title page and must disclose:

- All forms of financial support relating to the submission, including any grants or pharmaceutical company support.
- Any commercial or financial involvements that might present an appearance of a conflict of interest related to the submission.
- Any agreement with any sponsor of the research reported in the Contribution that prevents the authors publishing both positive and negative results or forbids the authors from publishing this research without the prior approval of the sponsor.

If there are no conflicting interests, a clear statement must be included on the Title page: “All named authors hereby declare that they have no conflicts of interest to disclose”.

6. Patient confidentiality and informed consent
Authors are required to ensure that the following guidelines are followed, as recommended by the International Committee of Medical Journal Editors (“Uniform Requirements for Manuscripts Submitted to Biomedical Journals”: http://www.icmje.org/urm_full.pdf).

Patients have a right to privacy that should not be infringed without informed consent. Identifying information, including patients' names, initials, or hospital numbers, should not be
used in written descriptions, photographs, and pedigrees unless the information is essential for scientific purposes and the patient (or parent or guardian) gives written informed consent for publication. Informed consent for this purpose requires that a patient who is identifiable be shown the manuscript to be published. Consent for publication must be given if illustrations include recognizable individuals, living or dead and of whatever age. Complete anonymity is difficult to achieve, however, and informed consent should be obtained if there is any doubt. For example, masking the eye region in photographs of patients is inadequate protection of anonymity. If identifying characteristics are altered to protect anonymity, such as in genetic pedigrees, authors should provide assurance to the editor that alterations do not distort scientific meaning.

When informed consent has been obtained it should be submitted as a separate document and a statement that informed consent has been obtained should be included on the Title page.

**7. Acknowledgements**
All contributors who do not meet the criteria for authorship should be listed in the ‘Acknowledgements’ section (see http://www.icmje.org/ethical_1author.html# for definition of authorship).

Examples of those who might be acknowledged include a person who provided purely technical help, writing assistance, or a departmental chair who provided only general support. Place acknowledgments on the Title page only.

**7.1 Funding Acknowledgement**
To comply with the guidance for Research Funders, Authors and Publishers issued by the Research Information Network (RIN), The Journal of Hand Surgery (European Volume) additionally requires all Authors to acknowledge their funding in a consistent fashion under a separate heading. All research articles should have a funding acknowledgement in the form of a sentence as follows, with the funding agency written out in full, followed by the grant number in square brackets:

- This work was supported by the Medical Research Council [grant number xxx].

Multiple grant numbers should be separated by comma and space. Where the research was supported by more than one agency, the different agencies should be separated by semicolons, with “and” before the final funder. Thus:

- This work was supported by the Wellcome Trust [grant numbers xxxx, yyyy]; the Natural Environment Research Council [grant number zzzz]; and the Economic and Social Research Council [grant number aaaa].

In some cases, research is not funded by a specific project grant, but rather from the block grant and other resources available to a university, college or other research institution. Where no specific funding has been provided for the research we ask that corresponding authors use the following sentence:

- This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

In all cases, authors should also identify individuals who provided writing/administrative assistance, indicate the extent of assistance and disclose the funding source for this assistance.
Please include all funding information under a separate heading entitled “Funding” on the Title page only. For more information on the guidance for Research Funders, Authors and Publishers, please visit: http://www.rin.ac.uk/funders-acknowledgement.

Back to top

8. Permissions
Authors are responsible for obtaining permission from copyright holders for reproducing any illustrations, tables, figures or lengthy quotations previously published elsewhere. Submit permissions as separate documents and acknowledge borrowed material within the manuscript as a caption in the following form:
“Reproduced by the kind permission of ....(publisher) from .....(source reference)”.

For further information on permissions including guidance on fair dealing for criticism and review, please visit our Frequently Asked Questions on the SAGE Journal Author Gateway.

Back to top

9. Presentation

9.1 File types
Only electronic files conforming to the journal's guidelines will be accepted. Preferred formats for the text and tables of your manuscript are Word .doc or .docx, and .tiff or .jpeg for figures. Please also refer to additional guidelines on submitting artwork [and supplemental files] below.

9.2 Manuscript Preparation
Word-process the text in double spacing with a margin of at least 3 cm all round. Left justify the text and include line-numbers and page-numbers. Submit papers in journal style. Failure to do so will result in return of the manuscript for correction and resubmission by the authors before it is sent out for review. Please refer to "Terminology for Hand Surgery" published by the International Federation of Societies for Surgery of the Hand (IFSSH) to ensure correct terminology is used: www.ifssh.info/TerminologyOfHandSurgery.html.

9.2.1 Keywords and Abstracts
The title, keywords and abstract are vital in ensuring that readers find your article online through search engines such as Google. Please refer to the information and guidance on how best to title your article, write your abstract and select your keywords by visiting SAGE's Journal Author Gateway Guidelines on How to Help Readers Find Your Article Online.

9.2.2 Guidelines for submitting artwork, figures and other graphics
For guidance on the preparation of illustrations, pictures and graphs in electronic format, please visit SAGE's Manuscript Submission Guidelines.

Submit electronic files of illustrations and figures. Preferred formats are .jpg or .tiff. Pdf and PowerPoint files are not acceptable.

All line illustrations should present a crisp black image on an even white background, and should be at a minimum of 600 dpi. Illustrations will be reduced in size during production and you must allow for this when choosing the size of any lettering.

Photographic illustrations and radiographs: Submit as clear, lightly contrasted, black-and-white images at a resolution of at least 300 dpi for an image width of 10 cm. If colour illustrations are necessary, submit in colour; they will be printed at the discretion of the editor and only if this is essential.
Submit radiographs as photographic images, carefully made to bring out the detail to be illustrated, with an overlay indicating the area of significance if necessary. Any lettering should be in capitals and of an appropriate size taking into account any necessary reduction in size of the illustration during production.

State the original magnification of microscopy images in the caption, or include a length guide on the image. Label all illustration files with a figure number.

Type captions, double spaced, in a separate section of the typescript. Number figures consecutively as they appear in the manuscript and ensure that all figures are referred to in the text. Keep legends brief, with no more than 40 words if possible.

9.2.3 Guidelines for submitting supplemental files
The journal is able to host approved supplemental materials online, alongside the full-text of articles. Supplemental files may be uploaded to Editorial Manager and will be subjected to peer-review alongside the article. For more information on copyright, acceptable formats and size, please refer to SAGE’s Guidelines for Authors on Supplemental Files.

9.2.4 English Language Editing
Non-English speaking authors who would like to refine their use of language in their manuscripts should have their manuscript reviewed by colleagues with experience of preparing manuscripts in English.

Alternatively it might be useful to consider using a professional editing service. Visit http://www.sagepub.co.uk/authors/journal/submission.sp for further information.

9.3 Journal Style

9.3.1 Style for scientific papers (excluding case reports)
Set out manuscripts as follows, starting each section on a separate page: title, summary, text, references, tables, captions to illustrations. You must also provide a separate Title page.

Title page: Give the following information: 1) title of article; 2) initials and surname of each author*; 3) name and address of the department(s) or institution(s) to which the work should be attributed, indicating which author is from where; 4) name, address, telephone and fax numbers and email address of the corresponding author; 5) four to six keywords; 6) acknowledgements; 7) declaration of conflicting interests; 8) funding statement; 9) Ethical approval details (if required); 10) Details of informed consent (if required).

The Title page must be uploaded onto our system separately from the manuscript. The manuscript must not show any identifying features of the authors, e.g. name of hospital or reference to previously published work.

* There should be no more than six authors for a full paper and no more than three for a case/short report. All authors must have made a significant contribution to the work and must have read the manuscript before submission. The work of other contributors can be recorded in the Acknowledgements, which should be included on the title page. See http://www.icmje.org/ethical_1author.html# for guidance on authors and contributors.

Summary: Summarize the contents of the article in a single paragraph with no sideheadings, not exceeding 150 words. State the purpose of the study, the basic procedures used, the main findings and principal conclusions. State the level of evidence at the end of the Summary (see chart at the end of this document). Do not include statistical significance values, abbreviations, footnotes or references.
Text: The text is usually split into sections under the headings Introduction, Methods, Results and Discussion. The use of other headings may be appropriate depending on the nature of the paper but a ‘Conclusions’ section is unnecessary because of the Summary. Avoid excessive use of subheadings. Normally only two categories of headings should be used: type major headings (such as Methods, Results and Discussion) in capital letters in the centre of the page in **BOLD**; type minor headings in lower case (with an initial capital letter) at the left margin and *Bold*. Do not number headings.

Do not use “he”, “his” etc where the sex of a person is unknown; use a non-gendered term such as "the patient". Do not refer to patients/participants as “subjects”. Avoid claiming priority.

Proprietary (trade) names: Please use non-proprietary names of drugs, suture materials, instruments etc. whenever possible. Give the proprietary name in brackets after the approved name and spell it with a capital letter followed by company name, city, state, country. For example, Axon BX-15 single screw extruder (Axon, Åstorp, Sweden).

Abbreviations: Avoid abbreviations. If used, explain unusual abbreviations when they first occur in the text. Please record the size of sutures as 2-0, 3-0 or 4-0 etc., not 2/0 etc.

Hyphens: The use of hyphens is subjective. However, please do not use a hyphen for nonunion, malunion, interphalangeal, metacarpophalangeal, scapholunate, radiolunate or radioscapoid. It is acceptable to insert a hyphen to separate two vowels, for example intra-articular and extra-articular.

Units: Use SI units throughout. Always insert a space between a number and a unit, e.g. 5 mm.

Numbers: Spell out one to ten except when used for units of measurement (mass, time, length); for numbers over ten, use numerals except when starting a sentence. Do not give percentages if the total number in the sample is less than 50. Round percentages greater than 10 to the nearest whole number.

Statistical methods: There is no need to document the computer program used for statistical analysis, e.g. "Data was analysed using SPSS (Chicago, Illinios)"). It is, however, essential that the statistical tests used are documented. Analyse numerical data by appropriate statistical methods which must be stated clearly in the Methods section of the paper. State in text or tables whether data are given as means and standard error of mean (SEM) or means and standard deviation (SD), then, when appropriate, give individual data as mean (SEM) or mean (SD). Do not use the “±” sign, e.g. 12.3 (SD 0.5) **not** 12.3 ± 0.5. Provide confidence intervals for data when appropriate. It is strongly recommended that statistical advice is obtained and acknowledged when preparing an article as submissions may be reviewed by a statistician. See Sauerland S, Lefering R, Bayer-Sandow T et al. Fingers, hands or patients? The concept of independent observations. J Hand Surg Br. 2003, 29: 102-5.

Tables: Avoid big tables containing large amounts of data; if this information is essential split it into smaller tables. Type each table on a separate sheet using double spacing and only horizontal rules. In Microsoft Word, the correct table style is "Table Simple 1", which can be found in Word 2003 by selecting the table and going to Table Autoformat, selecting “Table Simple 1” and unchecking the boxes “Color” and “Apply special format to the last column”. In Word 2007, select the table and click on the Design tab in Table Tools. Scroll down the Table Styles to find “Table Simple 1” (hover the mouse over the style to display its name); then set Shading to “No Color” and uncheck the Last Column box under Table Style Options. In Word 10, select the table and click on the Design tab in Table Tools. Hover over the Table Styles and choose the black and white Light Shading style. Then choose “No Color” from the Shading options.
Give an identification number and title above each table and any other explanatory information in footnotes below. Include all units and explain uncommon ones in the footnote. Refer to all tables in the text. Do not duplicate material in tables in the text or figures.

9.3.2 Style for short report letters
A case report or technical tip should be submitted to the Journal as a one page letter containing no more than 1000 words, though its length should be reduced by 200 words for each figure or table. Thus if a case report contains two figures or tables it should be no more than 600 words long. The format should be:

Title
Dear Sir
The text of the letter without section headings
The reference list (no more than four references)
Legends to figures

Upload onto the system as 'manuscript (without authors’ names, affiliations)'.

You must also upload a separate Title page: Give the following information: 1) title of short report letter; 2) initials and surname of each author (no more than 3); 3) name and address of the department(s) or institution(s) to which the work should be attributed, indicating which author is from where; 4) name, address, telephone and fax numbers and email address of the corresponding author; 5) four to six keywords; 6) acknowledgements; 7) declaration of conflicting interests; 8) funding statement; 9) Ethical approval details (if required).

The Title page must be uploaded onto our system separately from the short report letter. The short report letter must not show any identifying features of the authors, e.g. name of hospital or reference to previously published work.

Provide a brief abstract in the relevant section of the submission process. This would not be published but is used for review purposes.

Back to top

9.4 Reference style for all submissions

The accuracy of references is the responsibility of the authors, who are encouraged to download reference details from MedLine or another accurate database, in order to avoid inaccuracies and typographical errors. References are checked during the review process and if inaccuracies are found, the submission will be returned to the authors for correction before the review process can be continued. Limit citations to those that are pertinent and essential to your study; for example, it is not necessary to cite Dupuytren's original publication in every paper about Dupuytren's disease. If references have been downloaded from Medline, or an equivalent accurate database, please state this in the letter of submission.

Submit references in the correct style for this journal. Our reference style is available on Endnote. Please check the Output page at www.endnote.com or go to: http://www.endnote.com/support/enstyles.asp and carry out a search using the words exactly as follows: Journal of Hand Surgery (European Volume)

In the text, citations should give the author's name and date of publication in brackets. Do not use superscript numerals. If there are two authors, link their names with "and", not "&" - for example (Sauerland and Davis, 2004). If there are three or more authors give the name of the first and follow it with "et al." - for example (Kalbermatten et al., 2008). When several references are given together in brackets in the text, list them in alphabetical order, with each reference separated by a semicolon.

Type the reference list double spaced and separately from the main text. List references in alphabetical order of their first author. If there are more than six authors, give the first three
followed by "et al.". When referencing a journal article, list the authors, the title of the article, the journal title abbreviation used by PubMed (http://www.ncbi.nlm.nih.gov/pubmed/), the year, the volume number and the first and last page - this style is similar to that used in PubMed. Authors are advised to "copy and paste" from PubMed and then adjust the reference, or use reference management software.

Note the following examples of references:

**Articles in journals**


**Book**

**Chapter in a book**

**Chapter in a book with volumes**

**Internet publication**

Do not refer to abstracts, personal communications and unpublished material such as lectures, posters, correspondence club letters and manuscripts submitted but not yet accepted for publication

**CHECKLIST**
Carefully check the following before submitting the manuscript:

*Submission letter* (containing information described above)
*Title page* (which includes a 'Declaration of Conflicting Interests' and a 'Funding' statement and, if required, details of Ethical Approval and/or Informed Consent)
*Summary/Abstract* (a single paragraph, maximum 150 words, no side-headings)
*Main text* uploaded as 'Manuscript without authors’ names or affiliations’ (which should not show authors' identities but should show the title of the paper and include summary/abstract, main text, figure legends and references.)
*Tables*
*Figures*
*Patient consent for identification*
*Permission to use previously published material*

Submit via the journal's online submission system at http://jhse.edmgr.com
If you would like to discuss your paper prior to submission or seek advice please contact the Editor: editor@journalofhandsurgery.com

10. After acceptance

10.1 Proofs
We will email a PDF of the proofs to the corresponding author. Corrections should be limited to typographical amendments. Authors’ approval will be assumed if corrections are not returned by the date indicated.

10.2 E-Prints and Complimentary Copies
SAGE provides authors with access to a PDF of their final article. For further information please visit http://www.sagepub.co.uk/authors/journal/reprint.sp. We additionally provide the corresponding author with complimentary copies of the print issue in which the article appears - up to a maximum of five copies for onward supply by the corresponding author to co-authors.

10.3 SAGE Production
At SAGE we place an extremely strong emphasis on the highest production standards possible. We attach high importance to our quality service levels in copy-editing, typesetting, printing, and online publication (http://online.sagepub.com). We also seek to uphold excellent author relations throughout the publication process.

We value your feedback to ensure that we continue to improve our author service levels. On publication all corresponding Authors will receive a brief survey questionnaire on your experience of publishing in the Journal of Hand Surgery (European Volume) with SAGE.

10.4 OnlineFirst Publication
The Journal of Hand Surgery (European Volume) provides the opportunity for your article to be included in OnlineFirst, a feature offered through SAGE’s electronic journal platform, SAGE Journals Online. It allows final revision articles (completed articles in queue for assignment to an upcoming issue) to be hosted online prior to their inclusion in a final print and online journal issue. This significantly reduces the lead time between submission and publication. For more information please visit our OnlineFirst Fact Sheet.

Back to top

11. Further information
Any queries should be directed to: editor@journalofhandsurgery.com

Submit via the journal's online submission system at http://jhse.edmgr.com
## Levels of Evidence for Primary Research Questions: Types of Clinical Studies

<table>
<thead>
<tr>
<th>Therapeutic Studies—Investigating the Results of Treatment</th>
<th>Prognostic Studies—Investigating the Effect of a Patient Characteristic on the Outcome of Disease</th>
<th>Diagnostic Studies—Investigating a Diagnostic Test</th>
<th>Economic and Decision Analyses—Developing an Economic or Decision Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level I</td>
<td>High-quality randomized controlled trial with statistically significant difference or no statistically significant difference but narrow confidence intervals</td>
<td>Testing of previously developed diagnostic criteria in series of consecutive patients (with universally applied reference “gold” standard)</td>
<td>Sensible costs and alternatives; values obtained from many studies; multiway sensitivity analyses</td>
</tr>
<tr>
<td></td>
<td>Systematic review of Level-I randomized controlled trials (studies were homogeneous)</td>
<td>Systematic review of Level-I studies</td>
<td>Systematic review of Level-I studies</td>
</tr>
<tr>
<td>Level II</td>
<td>Lesser-quality randomized controlled trial (eg, &lt;80% follow-up, no blinding, or improper randomization)</td>
<td>Development of diagnostic criteria based on basis of consecutive patients (with universally applied reference “gold” standard)</td>
<td>Sensible costs and alternatives; values obtained from limited studies; multiway sensitivity analyses</td>
</tr>
<tr>
<td></td>
<td>Prospective comparative study</td>
<td>Systematic review of Level-I studies</td>
<td>Systematic review of Level-I studies</td>
</tr>
<tr>
<td></td>
<td>Un-treated controls from a randomized controlled trial</td>
<td>Systematic review of Level-II studies</td>
<td>Systematic review of Level-II studies</td>
</tr>
<tr>
<td></td>
<td>Systematic review of Level-II studies or Level-I studies with inconsistent results</td>
<td>Systematic review of Level-I studies</td>
<td>Systematic review of Level-II studies</td>
</tr>
<tr>
<td>Level III</td>
<td>Case-control study</td>
<td>Study of nonconsecutive patients (without consistently applied reference “gold” standard)</td>
<td>Analyses based on limited alternatives and costs; poor estimates</td>
</tr>
<tr>
<td></td>
<td>Case-control study</td>
<td>Systematic review of Level-III studies</td>
<td>Systematic review of Level-III studies</td>
</tr>
<tr>
<td></td>
<td>Retrospective comparative study</td>
<td>Systematic review of Level-III studies</td>
<td>Systematic review of Level-III studies</td>
</tr>
<tr>
<td></td>
<td>Systematic review of Level-III studies</td>
<td>Systematic review of Level-III studies</td>
<td>Systematic review of Level-III studies</td>
</tr>
<tr>
<td>Level IV</td>
<td>Case Series</td>
<td>Case-control study</td>
<td>No sensitivity analyses</td>
</tr>
<tr>
<td></td>
<td>Poor reference standard</td>
<td>Expert opinion</td>
<td>Expert opinion</td>
</tr>
</tbody>
</table>

1. A complete assessment of the quality of individual studies requires critical appraisal of all aspects of the study design.
2. A combination of results from two or more prior studies.
3. Studies provided consistent results.
4. Study was started before the first patient enrolled.
5. Patients treated one way (eg, with cemented hip arthroplasty) compared with patients treated another way (eg, with cementless hip arthroplasty) at the same institution.
6. Study was started after the first patient enrolled.
7. Patients identified for the study on the basis of their outcome (eg, failed total hip arthroplasty), called “cases,” are compared with those who did not have the outcome (eg, had a successful total hip arthroplasty), called “controls.”
8. Patients treated one way with no comparison group of patients treated another way.

This chart was adapted from material published by the Centre for Evidence-Based Medicine, Oxford, UK. For more information, please visit www.cebm.net.