DESCRIPTION

The Journal of Hospital Infection is the editorially independent scientific publication of the Healthcare Infection Society. The aim of the Journal is to publish high quality research and information relating to infection prevention and control that is relevant to an international audience.

The Journal welcomes submissions that relate to all aspects of infection prevention and control in healthcare settings. This includes submissions that: provide new insight into the epidemiology, surveillance, or prevention and control of healthcare-associated infections and antimicrobial resistance in healthcare settings; provide new insight into cleaning, disinfection and decontamination; describe novel aspects of outbreaks of infection; describe novel techniques for effective antimicrobial stewardship; describe novel techniques (laboratory-based or point of care) for the detection of infection or antimicrobial resistance in the healthcare setting, particularly if these can be used to facilitate infection prevention and control; improve understanding of the motivations of safe healthcare behaviour, or describe techniques for achieving behavioural and cultural change; improve understanding of the use of IT systems in infection surveillance and prevention and control.

We also welcome submissions that relate to national policies or guidelines, especially where the subject matter is of international relevance.

Although our readership is predominantly clinical, we are also pleased to received basic science submissions that have clinical relevance.

IMPACT FACTOR

2018: 3.704 © Clarivate Analytics Journal Citation Reports 2019

ABSTRACTING AND INDEXING

Scopus
EDITORIAL BOARD

Editor in Chief
J. Gray, Birmingham, UK

Editors
N. Mahida, Nottingham, UK
BA Oppenheim, Birmingham, UK

Specialist Editors
B. Cooper, Bangkok, Thailand
P.N. Hoffman, London, UK
A. Smith, Glasgow, UK
C. Tarrant, Leicester, UK

International Editorial Board
A. Agodi, Catania, Italy
L.S. Aho Glele, Dijon, France
E. Alp, Kayseri, Turkey
J.A. Al-Tawfiq, Dhahran, Saudi Arabia
B.M. Andersen, Oslo, Norway
L. Andersen, Copenhagen, Denmark
A. Apisarnthanarak, Pratumthani, Thailand
F. Barbut, Paris, France
M. Baxter, Exeter, UK
A. Bennett, Salisbury, UK
A. Berrington, Sunderland, UK
J. Blenkharn, London, UK
C. Block, Jerusalem, Israel
M. Borg, Msida, Malta
T. Boswell, Nottingham, UK
S. Brusaferro, Udine, Italy
P Carling, Boston, USA
V. Cheng, Hong Kong, Hong Kong
J. Child, Harrogate, UK
T. Chinniah, Bandar Seri Begawan, Brunei
A. Chowdhary, Delhi, India
D. Coleman, Dublin, Ireland
A. Colville, Exeter, UK
R. Cooke, Liverpool, UK
M. Cooper, Wolverhampton, UK
G.D. Corcoran, Cork, Ireland
R. Cunningham, Plymouth, UK
L.T. Curtis, New York, USA
S. Dancer, East Kilbride, UK
C. Dawson, Coventry, UK
M Diggle, Nottingham, UK
C. Dunne, Limerick, Ireland
T. Elumgo, Norwich, UK
D. Enoch, Cambridge, UK
E. Ersoz, Mersin, Turkey
F. Falkiner, Dublin, Ireland
C. Fry, London, UK
A. Gardner, Watson, Australia
M. Garvey, Birmingham, UK
P Gastmeier, Berlin, Germany
S. D. Goldenberg, London, UK
K. Gould, Newcastle upon Tyne, UK
A. Guyot, Dortmund, Germany
Z. Hassan Al-Wahsh, Zarqa, Jordan
A. Holmes, London, UK
H. Humphreys, Dublin, Ireland
T. Inkster, Glasgow, UK
M. Ip, Hong Kong, Hong Kong
A. Jeanes, London, UK
P. Jenks, Plymouth, UK
S. Jog, Exeter, UK
N. Jonathan, Wrexham, UK  
P.N. Jumaa, Birmingham, UK  
G. Kampf, Greifswald, Germany  
M. Kiernan, Brentford, UK  
E. Kingston, Limerick, Ireland  
P. Lal, Kent, UK  
P. Lambert, Birmingham, UK  
S. Lang, Glasgow, UK  
T. Lejko Zupanc, Ljubljana, Slovenia  
D. Lepelletier, Nantes, France  
M. Licker, Timisoara, Romania  
J. Lipman, Brisbane, Australia  
B. Lopman, Atlanta, USA  
J.C. Lucet, Paris, France  
D. Malik, Loughborough, UK  
H. Maltezou, Athens, Greece  
M.L. McAlaws, Sydney, Australia  
M. Meda, Frimley, UK  
S. Mehtar, Cape Town, South Africa  
M. Millar, London, UK  
S. Millership, Witham, UK  
A. Mitchell, Apopka, USA  
P. Moore, Gloucester, UK  
M. Morgan, Exeter, UK  
K. Morikane, Yamagata, Japan  
L.S. Munoz-Price, Milwaukee, USA  
P. Munthali, Coventry, UK  
M. Narayanan, Newcastle upon Tyne, UK  
W. Newsholme, London, UK  
E. Olson, Edinburgh, UK  
A.S. Omran, Riyadh, Saudi Arabia  
J. Orendi, Stoke-on-Trent, UK  
N. O'Sullivan, Dublin, Ireland  
M.C. Padoveze, Sao Paulo, Brazil  
P. Parneix, Bordeaux, France  
M. Patel, Birmingham, UK  
P. Pittet, Geneva, Switzerland  
P. Ramakrishna, Bangalore, India  
N. Ratnaraja, Birmingham, UK  
J. Reilly, Glasgow, UK  
E. Rousham, Loughborough, UK  
B. Rutala, Chapel Hill, USA  
S. Saint, Ann Arbor, USA  
S. Salmon, Sydney, Australia  
S. Sengupta, Haryana, India  
S. Shalhoub, Jeddah, Saudi Arabia  
J Stephenson, Carshalton, UK  
R. Szabó, Budapest, Hungary  
L Teare, Chelmsford, UK  
E. Van Kleef, London, UK  
A.G. Venier, Bordeaux, France  
K. Vickery, North Ryde, Australia  
M. Vos, Rotterdam, The Netherlands  
A. Walker, Pentraeth, UK  
J. Walker, Salisbury, UK  
M. Weinbren, Chesterfield, UK  
M. Wilcox, Leeds, UK  
J.R. Zahar, Paris, France  
W. Zingg, Geneva, Switzerland  

Editorial and Production Manager  
Antonia Johnston, London, UK
GUIDE FOR AUTHORS

INTRODUCTION

About the Journal

The Journal of Hospital Infection (JHI) is the editorially independent scientific publication of the Healthcare Infection Society (HIS). The aim of the Journal is to publish high quality research and information relating to infection prevention and control that is relevant to an international audience.

Scope of the Journal

JHI welcomes submissions that relate to all aspects of infection prevention and control in healthcare settings. This includes submissions that:
- provide new insight into the epidemiology, surveillance, or prevention and control of healthcare-associated infections and antimicrobial resistance in healthcare settings;
- provide new insight into cleaning, disinfection and decontamination;
- provide new insight into the design of healthcare premises;
- describe novel aspects of outbreaks of infection;
- throw light on techniques for effective antimicrobial stewardship;
- describe novel techniques (laboratory-based or point of care) for the detection of infection or antimicrobial resistance in the healthcare setting, particularly if these can be used to facilitate infection prevention and control;
- improve understanding of the motivations of safe healthcare behaviour, or describe techniques for achieving behavioural and cultural change;
- improve understanding of the use of IT systems in infection surveillance and prevention and control.

We also welcome submissions that relate to national policies or guidelines, especially where the subject matter is of international relevance.

Although our readership is predominantly clinical, we are also pleased to receive basic science submissions that have clinical relevance.

Contact information and Queries

Authors may send queries to the Editorial Office.

Email: admin@his.org.uk
Tel.: +44 (0)207 125 0822

ARTICLE TYPES

For further information regarding formatting articles for submission to the JHI, please refer to the 'Preparation' section below.

The JHI invites articles of the following types:

Reviews
We welcome both general reviews, that summarize the current understanding and research on a topic, and systematic reviews, that provide a thorough critical assessment of current evidence. Although we encourage the submission of review articles, before you start work on a review, we do advise that you check with the editorial office that the topic of your review is suitable, and that a similar review has not already been commissioned by the Editorial Team.

Reviews are generally divided into the following sections: Summary, Introduction, Methods, Results, Discussion, Conclusion, Acknowledgements and References. A combined Results and Discussion section may be appropriate, especially for general reviews.

General reviews
An unstructured Summary of up to 250 words is required. The word limit for the main text of the article (excluding the Summary and References) is 4000 words. Each figure and/or table counts as 200 words towards the total. The JHI also accepts electronic supplementary material to support and enhance your review.

Systematic review articles
Authors of systematic reviews and meta-analyses are encouraged to present these according to the PRISMA guidelines for systematic reviews and meta-analyses (http://www.prisma-statement.org). A structured summary of up to 250 words is required. There is no word limit for this article format. However, authors are encouraged to provide material that enhances, but is not essential in the main manuscript, as electronic supplementary material.

**Full-length, original research articles**
This is the usual format for publishing original research. Full length articles are divided into the following sections: Structured summary (250 words maximum), Introduction, Methods, Results, Discussion, Conclusions, Acknowledgements, Conflict of interest statement, Funding source and References.

The word limit for the main text of the article (excluding the Summary and References) is 4000 words. Each figure and/or table counts as 200 words towards the total. The JHI also accepts electronic supplementary material to support and enhance your scientific research.

**Short reports**
This format is ideal for reporting smaller original research studies. The format is the same as for a full length original research article, except that the Summary of up to 100 words should be unstructured, and a separate Conclusion section is not required. A combined Results and Discussion section may be appropriate.

The word limit for the main text of the article is 2000 words, with no more than two figures or tables (each counting as 200 words), and a maximum of ten references.

**Commentaries**
Commentaries are by invitation only. These are intended to provide background and context for published articles, and are usually written by an Editorial Board member or referee. The usual word limit is 700 words, and a maximum of 10 references. No tables or figures are allowed, and no summary or structural headings are required.

**Editorials**
Editorials are also by invitation only. These provide a broad overview of topics that are relevant to infection prevention and control, but are less detailed than a review article. Word and reference limits will be agreed with the Editor at the time of invitation. No tables or figures are allowed, and no summary or structural headings are required. Readers are welcome to submit suggestions for editorial subject matter to our office.

**Opinions**
Opinions are articles expressing an opinion on topical or contentious issues relating to infection prevention and control. The word limit is 700 words and a maximum of 10 references. No tables or figures are allowed, and no summary or structural headings are required. Opinion articles are sometimes invited, but readers are also welcome to submit unsolicited Opinions. We do however recommend that, before starting work, authors check with the editorial office that the subject of the Opinion is suitable.

**National or society guidelines**
We encourage authors to contact the office as soon as possible during guideline development to discuss a publishing strategy for their Guidelines.

**Letter to the Editor**
We welcome letters relating to, or responding to, recently published items in the journal. Where appropriate, these will be shown to the authors of the original article prior to publication, who will be invited to respond. We also welcome correspondence relating to general observations about infection prevention and control practice. We will also consider publishing reports of good quality small research projects in the form of a letter, where the findings are of general interest. Letters should contain up to 800 words of text and no more than eight references. One table or figure is permitted. Letters should not contain structural headings or a summary.

**Outbreak reports**
We welcome these, but there should be something new about them to justify publication, e.g. caused by a novel organism, associated with a new source or identified or controlled using novel methods. Outbreaks may be reported as full length articles, short reports or letters; please note that the manuscript must be structured according to the requirements for the chosen article type.

**Case reports**
We recommend that case reports be submitted to *JHI*'s sister journal *Infection Prevention in Practice*, which is an open access title. JHI will continue to publish Practice Points articles (see below).

**Gram-negative bloodstream infections**
In many countries the incidence of these infections has increased substantially in recent years; prevention of these infections is a challenge to infection prevention and control practitioners. To facilitate the sharing of information on this important subject the *JHI* regularly publishes a Special Section entitled *Preventing Healthcare-associated Gram-negative Bloodstream Infections*. We welcome all article types for this section, but in order to open up this topic to as many contributors as possible we have created a new *Practice Points* article type.

**Practice Points**
These are short peer-reviewed articles that are intended for communication of research, audit or clinical experience (whether positive or negative) of Gram-negative bloodstream infections that would be of general interest but are not substantial enough for publication as either a short report or full paper. Practice Points are up to 800 words in length with no more than 8 references; one table or figure is allowed. There should be no structured headings within the article. A separate summary, and keywords, are not required. An example of this article type is available here: [http://www.sciencedirect.com/science/article/pii/S0195670117305911](http://www.sciencedirect.com/science/article/pii/S0195670117305911)

**EDITORIAL POLICY FOR AUTHORS**

**Ethics in publishing**
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

**Studies in humans and animals**
If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans. The manuscript should be in line with the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals and aim for the inclusion of representative human populations (sex, age and ethnicity) as per those recommendations. The terms sex and gender should be used correctly.

Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

All animal experiments should comply with the ARRIVE guidelines and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, EU Directive 2010/63/EU for animal experiments, or the National Institutes of Health guide for the care and use of Laboratory animals (NIH Publications No. 8023, revised 1978) and the authors should clearly indicate in the manuscript that such guidelines have been followed. The sex of animals must be indicated, and where appropriate, the influence (or association) of sex on the results of the study.

**Declaration of interest**
All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. More information.
Submission declaration and verification
Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service Crossref Similarity Check.

Use of inclusive language
Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

Contributors
Each author is required to declare his or her individual contribution to the article: all authors must have materially participated in the research and/or article preparation, so roles for all authors should be described. The statement that all authors have approved the final article should be true and included in the disclosure.

The JHI requires a hand signed signature from every individual author listed confirming that they have read and agree to the final draft before submission. Signatures created on a computer cannot be accepted.

Authorship
All authors should have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

Changes to authorship
This policy concerns the addition, deletion, or rearrangement of author names in the authorship of accepted manuscripts:
Before the accepted manuscript is published in an online issue: Requests to add or remove an author, or to rearrange the author names, must be sent to the Journal Manager. (The details of the Journal Manager will be supplied to the corresponding author once a paper has been accepted.) from the corresponding author of the accepted manuscript and must include: (a) the reason the name should be added or removed, or the author names rearranged and (b) written confirmation (e-mail, fax, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Requests that are not sent by the corresponding author will be forwarded by the Journal Manager to the corresponding author, who must follow the procedure as described above. Note that: (1) Journal Managers will inform the Journal Editors of any such requests and (2) publication of the accepted manuscript in an online issue is suspended until authorship has been agreed.
After the accepted manuscript is published in an online issue: Any requests to add, delete, or rearrange author names in an article published in an online issue will follow the same policies as noted above and result in a corrigendum.

Reporting clinical trials
Randomized controlled trials should be presented according to the CONSORT guidelines. At manuscript submission, authors must provide the CONSORT checklist accompanied by a flow diagram that illustrates the progress of patients through the trial, including recruitment, enrollment, randomization, withdrawal and completion, and a detailed description of the randomization procedure. The CONSORT checklist and template flow diagram are available online.

Registration of clinical trials
Registration in a public trials registry is a condition for publication of clinical trials in this journal in accordance with International Committee of Medical Journal Editors recommendations. Trials must register at or before the onset of patient enrolment. The clinical trial registration number
should be included at the end of the abstract of the article. A clinical trial is defined as any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects of health outcomes. Health-related interventions include any intervention used to modify a biomedical or health-related outcome (for example drugs, surgical procedures, devices, behavioural treatments, dietary interventions, and process-of-care changes). Health outcomes include any biomedical or health-related measures obtained in patients or participants, including pharmacokinetic measures and adverse events. Purely observational studies (those in which the assignment of the medical intervention is not at the discretion of the investigator) will not require registration.

**Copyright**

Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

**Author rights**

As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Elsevier supports responsible sharing

Find out how you can share your research published in Elsevier journals.

**Role of the funding source**

You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

Funding body agreements and policies

Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of existing agreements are available online. After acceptance, open access papers will be published under a noncommercial license. For authors requiring a commercial CC BY license, you can apply after your manuscript is accepted for publication.

**Open access**

This journal offers authors a choice in publishing their research:

**Subscription**

- Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
- No open access publication fee payable by authors.
- The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

**Gold open access**

- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.
Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)
For non-commercial purposes, let others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is USD 3300, excluding taxes. There is a 10% discount off the open access publication fee for members of the Healthcare Infection Society (HIS). To be eligible for the society membership discount the corresponding author or the first author must be a member of the Healthcare Infection Society (HIS). Elsevier reserves the right to remove or refuse the discount. Learn more about Elsevier’s pricing policy: https://www.elsevier.com/openaccesspricing.

Green open access
Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution’s repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. Find out more.

This journal has an embargo period of 12 months.

Language (usage and editing services)
The language of the JHI is British English.
Please adjust your spell checker if necessary. British spellings include diarrhoea, Haemophilus, haematology, paediatrics, leucocyte, leukaemia, bacteraemia, sulphonamides, aetiology. Please note the journal uses UK ‘z’ spelling (e.g., colonizes) and meticillin not methicillin.

Always write in plain English - many of our readers will not be native English speakers. Please be careful to use terminologies that will be understandable internationally, for example when describing the organisation of your hospital or healthcare system. Please be careful not to use jargon which will not be internationally understood.

Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier’s WebShop (http://webshop.elsevier.com/languageediting/) or visit our customer support site (https://service.elsevier.com) for more information.

Informed consent and patient details
Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals in an Elsevier publication. Written consents must be retained by the author but copies should not be provided to the journal. Only if specifically requested by the journal in exceptional circumstances (for example if a legal issue arises) the author must provide copies of the consents or evidence that such consents have been obtained. For more information, please review the Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.
Submission
Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

Please submit your article via http://jhi.edmgr.com

A mobile telephone number and e-mail address must be provided to aid processing of manuscripts.

PREPARATION
Peer review and editorial process
Your submission will be received by the Editorial office.

Papers that are submitted without all Author's hand signed signatures or with references or other features that do not comply with the instructions to authors will be returned to their authors and will not be considered for publication until they have been corrected and resubmitted.

You will receive an acknowledgement by email containing your unique reference number; which should be used in all further communications, once it is being considered for publication.

All newly submitted papers are first considered by the Editorial team.

Around half of all submissions are rejected at this stage. The main reasons for papers being rejected at this stage are that the subject material does not fall within the scope of the JHI, or the findings are not sufficiently novel to merit publication in an international journal. We aim to return a decision to the authors on these papers within 7 days, and will always provide a reason why we have rejected the paper.

The remaining papers are sent out for single blind peer review.

Accepted articles will be published online before appearing in the printed journal. These Pre-print online versions are citable by the digital object identifier (DOI).

Use of word processing software
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Article structure
It is the authors responsibility to put the manuscript into the required format before submission. Papers submitted that do not comply with these instructions will be returned to the author and not considered for publication until they have been resubmitted.

Text
Depending on the article type the following headings must be used You may also use subheadings to break up the text, but footnotes should be avoided. All pages of your manuscript should be numbered consecutively in the following order: title page, text, references, tables, figures, legends.

Introduction
Include a brief statement outlining the purpose and context of your paper but leave discussion for the Discussion section.

**Methods**

You can include preliminary results in the Methods section if necessary.

**Results**

This should be a statement of Results, without discussion of their significance or relationship to those of others. You can present this information in text or in figures or tables, but not both.

**Discussion**

Include any weaknesses or limitations of your study here but do not introduce any new results.

**Conclusions**

The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

**Appendices**

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

**Essential title page information**

You should show the article title, names of all authors (but not their degrees) and the name of the institution or department where the work was done, as well as the name, address, telephone and email address of the author to whom the proofs and correspondence should be sent if accepted. A running title not exceeding 40 characters and spaces should also be provided on the title page.

**Structured summary**

The summary should explain briefly what was done, what was observed and what was concluded. Please note that this is arguably the most important part of the entire paper and will be the first, and perhaps the only, part of your paper that is read.

Summaries should be structured, with the following sub-headings: Background, Aim, Methods, Findings and Conclusion.

Summaries must not exceed 250 words. MEDLINE/PubMed has a maximum limit of 250 words for published summaries; anything past 250 words is truncated resulting in the loss of the concluding portion of your summary.

**Keywords**

Please provide up to 6 keywords from your summary and list them immediately after the summary. You should use British spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**Abbreviations**

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

**Acknowledgements**
You should acknowledge any help received in carrying out the work, including supply of bacterial strains, permission to study patients, phage or biotyping of strains, language or writing help. Acknowledgements should appear in a separate section before the references.

**Numbers and measurements**

Write out numbers one to nine unless they are measurements (e.g. 5 mL). Spell out numbers greater than 9 if they begin a sentence, or when clarity requires it. Numbers above and including 10 000 have a space, not a comma. A decimal point is preceded by a number or cypher, e.g. '0.5'. Decimal points in columns should be aligned vertically.

Measurements may be expressed in SI or non-metric units. Use 10 mL/h rather than -1 or per. When referring to microbial concentrations use expressions such as '10x', not 'x log10'. When referring to changes in microbial concentration, use expressions such as 'reduced by a factor of 10x', not 'reduced by x log10'; 'a log10 reduction factor of x' may also be used.

**Bacterial nomenclature**

Organisms should be referred to by their scientific names according to the binomial system. When first mentioned the name should be spelt in full and written in italics. Afterwards the genus should be abbreviated to its initial letter, e.g. 'S. aureus' not 'Staph. aureus'. If abbreviation is likely to cause confusion or render the intended meaning unclear spell out the names of microbes in full.

When the genus alone is used as a noun or adjective, use lower case roman not underlined, e.g.'organisms were staphylococci' and 'acinetobacter infection'. If the genus is specifically referred to, use italics, e.g. 'organisms of the genus *Staphylococcus*'. For genus in plural, use lower case roman e.g. 'salmonellae'; plurals may be anglicized e.g.'salmonellas'. For trivial names, use lower case roman e.g. 'meningococcus'.

**Statistics**

Include *P* values and confidence intervals where appropriate. The name and version of any statistical computer package should be written out in full.

**Drugs**

These should be referred to by their approved generic names. Do not use the proprietary name, as this may vary between countries.

**Date format**

Dates should be written in full with superscript "th", e.g. 20th September 2001. Otherwise, use European Date Format, i.e. 20/9/2001, not 9/20/2001.

**Footnotes**

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

*Additional points to note*

Use two carriage returns to end headings and paragraphs. Type text without end of line hyphenation, except for compound words. Do not use the lower case letter 'l' (el) for '1' (one) or 'O' for '0'. (They have different typesetting values.) Be consistent with punctuation and only insert a single space between words. Please include a list of any special characters you have had to use, e.g. Greek letters used in mathematical equations.

The Editor retains the customary right to make changes in style and language without consultation to ensure accuracy, clarity and comprehension to our wide readership.

*Formatting of funding sources*

List funding sources in this standard way to facilitate compliance to funder's requirements:
Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Artwork**

**Electronic artwork**

**General points**

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.
- Ensure that color images are accessible to all, including those with impaired color vision.

A detailed guide on electronic artwork is available.

**You are urged to visit this site; some excerpts from the detailed information are given here.**

**Formats**

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

- EPS (or PDF): Vector drawings, embed all used fonts.
- TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
- TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
- TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

**Please do not:**

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

**Color artwork**

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. **For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article.** Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

**Illustration services**

Elsevier's Author Services offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.
**Figures**
Illustrations should be in finished form suitable for reproduction. Photographs should have strong contrast and be trimmed to exclude unnecessary background. Figure details should be easily discriminated at the final size. Colour photographs will be considered only if essential.

Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (**not** on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

All illustrations are to be numbered with arabic numerals as Figures 1, 2, 3 etc. without abbreviation, in the order of their first mention in the text.

A short explicit legend must be provided for each figure. All such legends should be listed together in the final section of the manuscript.

**Tables**
Tables should be numbered in Roman numerals (e.g. Table III). Each table should be on a separate sheet after the references and should include a title which makes the meaning clear without reference to the text. Use '-' for 'no observation', or 'not measured'.

**References**
In the text, consecutively number your references in the order in which they are first mentioned, and identify them in square brackets, for example 'as noted by Smith [4]'.

Quoted references should be listed in numerical (not alphabetical) order at the end of the article. References cited in tables or in figure legends should be numbered sequentially according to the first mention in the text of the particular table or illustration. Please ensure that every reference cited in the text is also present in the reference list (and vice versa).

Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

**Reference links**
Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, CrossRef and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is encouraged.

**References in a special issue**
Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

**Web references**
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

**Data references**
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.
Reference style
Text: Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.

List: Number the references (numbers in square brackets) in the list in the order in which they appear in the text.

Examples:
Reference to a journal publication:

Reference to a journal publication with an article number:

Reference to a book:

Reference to a chapter in an edited book:

Reference to a website:

Reference to a dataset:

Note shortened form for last page number. e.g., 51–9, and that for more than 6 authors the first 6 should be listed followed by 'et al.' For further details you are referred to 'Uniform Requirements for Manuscripts submitted to Biomedical Journals' (J Am Med Assoc 1997;277:927–34) (see also Samples of Formatted References).

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/journal-of-hospital-infection

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Journal abbreviations source
Journal names should be abbreviated according to the List of Title Word Abbreviations.

Video
Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

JHI accepts electronic supplementary material to support and enhance your scientific research. Supplementary files offer the author additional possibilities to publish supporting applications, high-resolution images, background datasets, sound clips and more. Supplementary files supplied will be published online alongside the electronic version of your article in Elsevier Web products, including ScienceDirect: http://www.sciencedirect.com. In order to ensure that your submitted material is directly usable, please provide the data in one of our recommended file formats. Authors should
submit the material in electronic format together with the article and supply a concise and descriptive caption for each file. For more detailed instructions please visit our artwork instruction pages at https://www.elsevier.com/artworkinstructions.

Supplementary material ordinarily applies to Full length original articles and Reviews only and will be published at the discretion of the Editor.

**Submission checklist**
A submission check list and FAQs can be found here.

**Tracking the progress of your submission prior to acceptance**

The corresponding author can login to Editorial Manager at any time to check the status of your submitted article.

The following statements give an indication of its status in the peer-review process.

'With Editor'
The Editor has received your submission for initial consideration.

'Under review'
Your submission is being peer reviewed.

'All reviews complete'
The requested peer reviews have been completed. After assessment of the reviews additional review maybe required. In such cases the status will return to 'Under review' until the additional reviews are complete.

'With Editor'
The Editorial Team are processing your submission. Initially it will be considered whether to send for peer review but submission return to this status after peer review is complete. Please note there are many types of Editors within the team and the status will not change as it moves between them.

**AFTER ACCEPTANCE**

**Proofs**
One set of page proofs (as PDF files) will be sent by e-mail to the corresponding author (if we do not have an e-mail address then paper proofs will be sent by post) or, a link will be provided in the e-mail so that authors can download the files themselves. Elsevier now provides authors with PDF proofs which can be annotated; for this you will need to download the free Adobe Reader, version 9 (or higher). Instructions on how to annotate PDF files will accompany the proofs (also given online). The exact system requirements are given at the Adobe site.

If you do not wish to use the PDF annotations function, you may list the corrections (including replies to the Query Form) and return them to Elsevier in an e-mail. Please list your corrections quoting line number. If, for any reason, this is not possible, then mark the corrections and any other comments (including replies to the Query Form) on a printout of your proof and scan the pages and return via e-mail. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. We will do everything possible to get your article published quickly and accurately. It is important to ensure that all corrections are sent back to us in one communication: please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

**Offprints**
The corresponding author will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's Author Services. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.