

## General remarks

*Applied Clinical Informatics* publishes original papers, reviews, case reports, opinion papers, and editorials in medical/health informatics and related disciplines with an emphasis on translational or applied informatics<sup>1</sup>.

## What is the field of Applied Clinical Informatics?

*Applied Clinical Informatics* uses knowledge, concepts, instruments, and methods developed by informatics researchers to improve patient care through enhanced use of information systems.

*Applied Clinical Informatics* encompasses information systems used in patient care and their development, deployment, analysis, evaluation, assessment, operation, support, certification, their socio-technical aspects, and training requirements. For a more detailed description of the field our paper: Kim GR, Lehmann CU. In search of dialogue and discourse in applied clinical informatics *Appl Clin Inf* 2009; 0: 1–7; Doi:10.4338/ACI09-10-0002.

## Topics of interest for Applied Clinical Informatics include (but are not limited to):

### **Clinical information systems**

Electronic medical records and systems, personal health records, physician/provider order entry, electronic prescribing, clinical decision support, nursing information systems, patient scheduling and tracking tools, lab information systems, radiology information systems, PACS, GP information systems;

### **Administrative and management systems**

Practice management, patient notification and communications, drug and resource management, provider scheduling, forecasting and business intelligence, quality/safety surveillance and reporting, innovative data reuse and research (data warehousing and data marts);

### **eHealth systems**

Electronic communication among patients, providers and other stakeholders, electronic health systems, distributed services, wireless and mobile technologies for health care, telemedicine and telehealth, digital libraries, health information exchange;

### **Information technology development and deployment:**

Needs assessment and discovery, abstraction and design of systems, operationalization, selection and implementation, realization and operation, organizational and team barriers, project management, IT management;

### **Evaluation of information technology**

Benefits and impact assessments, unexpected consequences, implications for safety and quality, system-related errors, application of evaluation methodology and evaluation guidelines, certification of information technology;

### **Socio-technical aspects of information technology**

Implementation strategies and processes, privacy, security and information assurance, interdisciplinary workflows, workarounds, distinctions between ambulatory and inpatient workflows, diffusion of innovation, barriers and failures, organizational and team cultures, work practice innovation, communication processes, consumer involvement, user acceptance;

### **Health IT training**

Training and education, requirements and strategies for training, analysis of effectiveness of training.

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<sup>1</sup> Lehmann CU, Altuwaijri MM, Li YC, Ball MJ, Haux R. Translational research in medical informatics or from theory to practice. A call for an applied informatics journal. *Methods Inf Med* 2008; 47(1): 1–3.

*Applied Clinical Informatics* publishes original papers that have not been published in, submitted to or appeared in any print or online journal. Excepted from this policy are papers that have been published only as abstracts or appeared in a language other than English (e.g. selected, extended high-quality papers from international conferences). Applied Clinical Informatics welcomes letters to the Editor on topics of interest, which may be brief communications (including responses to material previously published in the journal). All submissions to Applied Clinical Informatics will be considered on an individual basis and must conform to the editorial requirements of this journal.

*Applied Clinical Informatics* follows the guidelines of the International Committee of Medical Journal Editors (<http://www.icmje.org/index.html>), the Committee on Publication Ethics (<http://www.publicationethics.org.uk>), and the Proposals for Safeguarding Good Scientific Practice of the German Research Association ([http://www.dfg.de/aktuelles\\_presse/reden\\_stellungnahmen/download/self\\_regulation\\_98.pdf](http://www.dfg.de/aktuelles_presse/reden_stellungnahmen/download/self_regulation_98.pdf)).

Authors must acknowledge the following when submitting material for publication:

- **Authorship.** All listed authors must have made substantial contributions to: (1) conception and design, acquisition of data and/or analysis/interpretation of data and (2) drafting and/or critical revision of the article for important intellectual content. All listed authors must approve the version to be published.
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- **Protection of Human Subjects and Animals in Research.** All authors submitting manuscripts on research involving human subjects must indicate in the text of the manuscript that the procedures used have been reviewed in compliance with ethical standards of the responsible committee on human experimentation (institutional and/or national as pertinent) and with the World Medical Association Declaration of Helsinki on Ethical Principles for Medical Research Involving Human Subjects (<http://www.wma.net/en/30publications/10policies/b3/17c.pdf>). Manuscripts on research not involving human subjects must include a statement of that in the text of the manuscript.

## Submission Types

### Research Articles

Research Articles contain original work not previously published or under consideration by another journal.

### Reviews

Reviews contain a state of the art review and summary of a specific subject relevant to Applied Clinical Informatics. Reviews may be solicited by the editorial board based on a perceived need for discussion of a specific topic.

### Case reports

Case reports are intended to be an Applied Clinical Informatics equivalent to case reports in clinical medicine. However, the focus in case reports will be an information system. Case reports focus on cases of interest with the emphasis on “lessons learned”. Case reports that focus on failures or successes and their analysis are preferred. Short case reports are preferred and should not exceed 2,000 words.

## Letters to the Editor

Letters include short highlights of applied clinical informatics that are significant enough for dissemination in ACI. Letters do not require keywords and summary, and should not exceed 2,000 words (ca. 14,000 characters). They should include no more than one table or figure, respectively. They undergo a review process.

## Manuscript Preparation

All submissions must be submitted ELECTRONICALLY. Paper manuscripts will not be reviewed and will be returned. Acceptable formats for documents are Microsoft Word (.doc, .docx) or OpenOffice (.docx, .docm). Acceptable formats for images are tagged image file (.TIF) or portable network graphics (.PNG).

Contributions must be submitted in English only, using American English spelling and word usage (Example: “color” instead of “colour”). The Editor reserves the right to reject or return a submission based on language use and grammar.

In general, the manuscript text (excluding summary, references, figures, and tables) should be in the range of 2500–3000 words but not exceed 5,000 words. Authors are responsible for obtaining permission to reproduce any and all copyrighted material. Authors must obtain permission when patient names or other identifiers, including photographs are used. Permission should be acknowledged in the paper (with documentation of permission accompanying the submission).

Papers will be examined for plagiarism. Papers found to contain plagiarism will be rejected.

## Blinding of Manuscript

Submissions to Applied Clinical Informatics will be subject to double-blinded peer review. This means that the authors are not aware who conducts the review, but also that the reviewer does not know the identities and institutions of the authors. This should guarantee a fair and un-biased review of the paper. The authors are thus responsible for masking any identifying information in the article (e.g.- from the title, content, tables and figures, funding sources, acknowledgements and conflict disclosures) that would allow the reviewer to deduct the organization or identity of the authors. The Editor will review submissions prior to peer review to verify sufficient blinding. Any paper that is not adequately blinded will be returned to the author without review. Once accepted, the authors can un-mask the information prior to publication.

## Organization of Manuscript

Pages are to be numbered consecutively beginning with the title page, starting with Arabic numeral 1.

Research papers should be organized into: Abstract, Introduction, Objectives, Methods, Results, Discussion, Conclusions, Acknowledgments, and References. Tables are to be placed at the end of the manuscript. Figures and legends are to be referenced within the paper but must be uploaded separately.

## Title Page

The first page should contain a concise and informative title of the paper.

## Abstract and Keywords

The Abstract should not exceed 300 words. It should include main headings: Background (optional), Objectives, Methods, Results and Conclusions and should be on a separate page. Keywords (no more than 5) that describe the contents of the submission should be included on a separate line below the Abstract. Terms from the Medical Subject Headings® (<http://www.nlm.nih.gov/mesh/MBrowser.html>) should be used (to facilitate indexing and retrieval).

## Text

Submissions are to be double-spaced. Text is to be 12 point type in Times New Roman font.

Headings (Background, Objectives, Methods, Results, Discussion, Conclusions) are to be numbered sequentially (Eg. 1. Background; 2. Objectives). Subheadings should be used where appropriate and may be numbered sequentially using decimal points (Eg. 1.1. Background first subheading; 1.2. Background second subheading). Paragraphs should be indented without extra line spacing.

## Clinical Relevance Statement

As the journal focuses on facilitating the translation of research results into practice, authors must provide a short paragraph with no more than 3 succinct sentences that discusses the ***Implications of results for practitioners and/or consumers***. This should be placed following the Conclusions and before the References.

## Conflicts of Interest

Authors must provide a statement acknowledging any conflicts of interest in a separate section of the manuscript. If the authors report no conflicts of interest, they must acknowledge as much, for example: “The authors declare that they have no conflicts of interest in the research.” If any conflicts do exist, please be explicit as to their nature.

## Protection of Human and Animal Subjects

All manuscripts must include language either describing the steps taken to protect human and/or animal subjects, or a statement acknowledging that human and/or animal subjects were not included in the project. Examples of basic language for human subjects protections would be: “The study was performed in compliance with the World Medical Association Declaration of Helsinki on Ethical Principles for Medical Research Involving Human Subject” or “This study was reviewed and approved by XX Institutional Review Board.”

## Tables and Figures

Tables and figures must be “camera-ready” at the time of submission,(i.e. suitable for reproduction as is). Type size should be chosen so that any reduction in the width of the columns will not affect legibility. Use a uniform type size, and avoid borders around tables and figures.

Tables must be double-spaced and numbered consecutively in Roman numbers (e.g. Table IV) as they appear in the manuscript. A clear title and legend should appear at the TOP of the table. Do not save or insert tables as image files, but include them at the end of the manuscript in consecutive

order. Tables should be referenced within the manuscript by their number (Example: "...as shown in Table IV").

Figures should be numbered consecutively and referred to in the text using Arabic numbers (e.g., Figure 1) as they appear in the manuscript. A clear title and caption should appear at the BOTTOM of the figure. Figures are to be included as separate files and should be referenced within the manuscript by their assigned number (Example: "...as shown in Figure 1"). If a figure requires blinding, the author may submit a modified figure once the paper has been accepted.

Figures and graphics are to be saved as tagged image file (.TIF) or portable network graphic (.PNG) formats with a minimum resolution of 800 dpi (line drawings) or 300 dpi (photos, screen pictures). It is important to save your figures with a clear, descriptive filename such as "Figure1.tif". Good laser printouts of line drawings may be used for scanning, but color, telefax and matrix printer printouts are unsuitable.

## Formulas

Mathematical, logical, computer and chemical formulas within documents should be reviewed carefully prior to submission for accuracy and clarity

- For mathematical and logical formulas, equation editor tools contained within word processors (For Microsoft Word: Microsoft Equation; For Open Office: Math) should be used. If other systems (ie LaTeX) are used, it may be preferable to save the formula as an image file (.TIF or .PNG)
  - Within figures, formulas and equations should be formatted as part of the image file (.TIF or .PNG)
  - Within tables, formulas, equations and calculations may be formatted using the word processor equation editors
  - Within text, individual formulas, equations and calculations should be presented as separate lines that present numbers and variables clearly.
- For chemical and other formulas, equations and maps (such as Unified Modeling Language (UML) diagrams):
  - Standard nomenclature should be used whenever possible
  - A legend that clearly explains the meaning of each formula and equation should be included. The legend should be able to stand separately from the text of the manuscript.
  - Formulas/equations/maps/diagrams should be saved as image files (.TIF or .PNG)

## References

References to existing literature should appear as a numbered list at the end of the manuscript in the order in which they are cited in the text, using the format specified by the International Committee of Medical Journal Editors Uniform Requirements for Manuscripts Submitted to Biomedical Journals ([http://www.nlm.nih.gov/bsd/uniform\\_requirements.html](http://www.nlm.nih.gov/bsd/uniform_requirements.html)). Uniform Resource Locators (URLs) and date of last access should be rechecked prior to final acceptance of the manuscript.

References within the text are to be noted by number within square brackets (Example: Reference [1]).

## Acknowledgements

Scientific advice, technical assistance, and credit for financial support and materials may be grouped in a section headed 'Acknowledgment(s)' that will appear at the end of the text (immediately after the conclusions section). This section must be blinded prior to submission of the manuscript and the unblinded for accepted manuscripts prior to publication.

## Manuscript Submission

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Full instructions and support are available on the manuscript submission site. A user ID and password can be obtained on the first visit.

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