Healthcare Informatics Research (HIR) is the official journal of the Korean Society of Medical Informatics (KOSMI), published quarterly in English. The journal publishes original research articles, reviews, case reports, tutorials, and communications to promote the fundamental understanding of healthcare informatics and advance knowledge and application systems in healthcare fields.

Manuscripts for submission to HIR should be prepared according to the following instructions. Failure to comply with these instructions will result in return of the manuscript and possible delay in publication.

HIR has adopted the recommendations of the International Committee of Medical Journal Editors (ICMJE), "Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals." Below, some of the important issues are highlighted. Visit http://www.icmje.org/recommendations/ for more details.

Submission & Review Policies
Submission of manuscript
All authors of a manuscript must have agreed to its submission to HIR and are responsible for the whole content, including literature citations and acknowledgments, and must have agreed that the corresponding author has the authority to act on their behalf on all matters pertaining to submission, revision, and publication of the paper.

Manuscript should be submitted on-line to HIR via e-submission system in the journal website (https://www.e-hir.org/). Once a corresponding author has logged into their own account, on-line system will lead them through the submission process in a step-by-step orderly process.

“Checklist for Submission” helps to ensure that your manuscript follows author’s guideline. After entering all the checklist and information about authors, manuscript title, abstract, key words and other details, you will be prompted for uploading files.

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Peer-review process
All manuscripts are treated as confidential and peer-reviewed by 3 anonymous reviewers selected by the Editor. Selected reviewers who cannot review the article for reasons of expertise, time, or conflict of interest should reply the Editor immediately. If necessary, the Editor may assign the article to the statistical editor to review statistical methods. The acceptance criteria for all manuscripts are based on the quality and originality of the research and its clinical and scientific significance. When the final revised manuscript is completely acceptable according to the HIR format and criteria, it is scheduled for publication in the next available issue. Rejected papers will not be peer-reviewed again.

Revision of manuscripts
The corresponding author is notified as soon as possible of the Editor’s decision to accept, reject, or request revision of manuscripts. When reviewers’ comments are returned to the corresponding author for revision, she or he should submit the
revised manuscript with a letter describing the alterations that have been made in response to the reviewers’ comments point by point. Failure to resubmit the revised manuscript within 6 weeks of the Editorial decision is considered as a withdrawal.

Accepted manuscripts
HIR will send all page proofs electronically to corresponding authors in PDF format, and the corresponding author must review their eProof within 48 hours. This proof stage is not a time for extensive corrections, additions, or deletions. It is advised that editing is limited to the correction of typographical errors, incorrect data, and grammatical errors, and for updating information on references which were in press. Authors are required to mark up their corrections on eProofs and attach a typed list of corrections (noting PDF page, column, and line of correction). The marked-up pages and itemized corrections list can either be sent by e-mail at hir@kosmi.org.

Publication charges
To help defray the cost of publication, a charge will be made for publication in HIR. Authors unable to meet these charges should include a letter of explanation upon acceptance for publication; inability to meet these charges will have no effect on acceptance and publication of submitted papers. A request letter to waive the charges may be sent to the Editor at hir@kosmi.org. However, authors whose research was supported by grants, special funds, or contracts must pay publication charges. Corresponding authors of articles accepted for publication will receive an e-mail notifying them how to pay any applicable publication charges. For a corresponding author who is an active member of KOSMI, publication charges are $200, and for a nonmember corresponding author, publication charges are $300. Nonmember corresponding authors may join KOSMI to obtain discounts on publications fees by paying a $50 annual membership fee. Additional $100 charge per page will be incurred if any correction of published articles results from authors’ oversight.

Post-publication discussions and corrections
HIR recognizes the importance of post-publication discussions and corrections on published articles. The post-publication discussions are available through letters to the editor. To make corrections to the print or online versions of published contents, HIR adopts four categories of amendments: Erratum (publisher correction), Corrigendum (author correction), Retraction or Addendum. All four correction types are bidirectionally linked to the original published paper.

Preparation of Manuscripts
Publication types
Original articles are papers reporting the results of basic and clinical investigations that are sufficiently well documented to be acceptable to critical readers.
Review articles provide reviews of subjects of importance to researchers written by experts in healthcare informatics, dealing with very active fields of research, current interests, fresh insights and debates.
Case reports deal with short application cases of healthcare informatics interest or innovation such as application of information technology followed by evaluative studies. This publication type may also cover a scientific paper that records the current state or current position of scientific research and development.
Tutorials consist of a type of reviews that gives an instructional and reasonably thorough coverage of a specific subject or field for researchers to update their awareness and knowledge.
Communications include short critical or explanatory notes of perspectives of opinion leaders on important topics or readers’ comments on articles published in HIR and replies from the authors.
Editorials provide a statement of the opinions, beliefs, and policy of the editors or experts in the healthcare informatics field, usually on current matters of scientific significance to the academic community or society at large.

Organization of manuscript
The manuscript should be prepared in the following sequence: cover letter, title page with authors and affiliations, abstract and keywords, main text, acknowledgments, references, tables, figure legends, followed by figures. Cover letter, title page, and figures should be on separate files, and main texts are differently organized according to the publication type.

1) Cover letter
The cover letter to the Editor must declare that a submitted manuscript has not been published and is not under simultaneous consideration for publication elsewhere in whole or in part in any language except in the form of an abstract. The cover letter must also state that authors understand that the manuscript may be regarded as redundant or duplicated if the manuscript contains any portion (defined as a paper, data, tables, or figures) that overlap substantially with information that has already been published. The cover letter accompanying the manuscript must specify the type of manuscript and include statements on ethical issues and conflict of interests, and complete contact information for the corresponding au-
2) Title page
The first page should include the title of the manuscript with a running title (less than 40 characters including spaces), the authors of the manuscript with their highest degrees (e.g., MD, PhD) and their affiliations. It should include name, full address and contact details (phone and email) of each author. Authors are also required to provide an ORCID (Open Researcher and Contributor ID), which can be obtained through the ORCID website (https://orcid.org/register).

3) Abstract and keywords
All original, review articles, case reports, and tutorials must include structured abstracts of 200 to 250 words and should be organized and include the Objectives, Methods, Results, and Conclusions of the study. Five keywords should be listed at the bottom of abstract. These keywords should be selected from the Medical Subject Heading (MeSH) in Medline, published by the US National Library of Medicine (https://www.ncbi.nlm.nih.gov/mesh). Considerable care should be taken for selecting keywords because they will be used for subject indexing in other databases as well as this Journal.

4) Main text
The main body of the manuscript submitted as an original article should be prepared under the designated subheadings: Introduction, Methods, Results, and Discussion. The other forms of manuscripts are organized in different formats. More details are explained in later sections for the original articles and the other types of manuscripts, respectively. The subheadings for this section are classified as I, 1. 1), and (1) in sequence.

5) Acknowledgments
All names of people who contributed substantially, but have not met the criteria for authorship such as administrative support, technical assistance, and critical reviews of the manuscript, are acknowledged here. All sources of funding applicable to the study should be stated here explicitly.

6) References
HIR has adopted the stylistic and formatting recommendations of the "NLM Format, http://www.nlm.nih.gov/citing-medicine," from which highlights are given in the later section. Authors are responsible for the accuracy and completeness of their references and correct in-text citations. In-text Citation should be made by giving consecutive Arabic numerals in brackets such as [1], [2,3], [4-6], and [2,7-9]. In the reference section, the references should be numbered and listed in order of appearance in the text. List all authors if there are less than or equal to six authors, and list the first six authors followed by "et al." if there are more than six authors. Abbreviate journal names according to those examples used in Index Medicus and PubMed.

7) Tables and figures
Each table should be prepared on a separate page. Tables are used to present data that cannot be incorporated conveniently into the text. Number of tables in order of citation in the text and avoid repetition of data. Tables should have a concise and informative title with the table content between horizontal lines. Vertical lines are not used. A table should not exceed one page when printed. Use lower case letters in superscripts a, b, c... for special remarks. Figures and illustrations should be prepared professionally. Graphics should be prepared in high quality with high tones and resolution. Photographs must be of sufficient contrast to withstand the inevitable loss of contrast and detail during the printing process. If a figure is to be reduced, be sure that all elements, including labels, can withstand reduction and remain legible. Microscopic figures must be original or scanned copies from the original, indicating the magnification with a scale bar on each micrograph.

Citations of tables and figures in the text or parentheses are presented as follows; Table 1, Figure 1, Tables 1, 2, Figures 1, 2, Tables 1-3, and Figures 1-3. When the text refers to both figures and tables, they should be mentioned in parentheses, e.g., (Table 1; Figure 2) or (Tables 1-3; Figures 4-6).

Main-text guideline
1) Basic structure for original articles

Introduction: Start the introduction on a separate page. The introduction should supply sufficient background knowledge and information to allow the reader to understand and evaluate the value of the study. It must also provide a rationale for the study. Cite references to provide the most salient background rather than an exhaustive review of the topic.

Methods: This section must include sufficient technical information to allow other researchers to be able to reproduce the results. Previously published or standardized techniques can be simply referred with reference citations. The statistical procedures used should be explained.

Results: Present the results concisely in logical sequence in the text. Tables and figures can be used, but information presented in tables and figures should not be repeated in the text.
Extensive interpretation of the results should be moved to the Discussion section. Number tables and figures in the order in which they are cited in the text, and be sure to cite all tables and figures in the text. All statements concerning the significance of differences observed should be accompanied by probability values given in parentheses.

**Discussion:** The discussion section should provide an interpretation and explanation of the results in relation to existing knowledge. Emphasis should be given to important new findings and new hypotheses should be described clearly. The conclusive remark must be supported by facts or data. The limitation of this current study might be included in this section. This section should not contain extensive repetition of the Results section or reiteration of the Introduction section.

2) Structure and volume by publication types

**Original article:** An original article should not exceed the following maximums: word count of main text, 3,000 words; number of references, 30; number of figure or tables, 10.

**Review article:** The main text for a review article is organized as follows: Introduction, body text, and Discussion. The body text is written in free style. All sections except the body text are in the form described for original papers.

**Case report and tutorial:** The main text for a case report and tutorial should be prepared under the designated subheadings: Introduction, Description, and Discussion. The description is written in free style. The word count of main text should not exceed 1,500 words. All sections except the description are in the form described for original papers.

**Communication and Editorial:** The manuscript includes title page, text, and references, and the text is written in free style. Tables and figures can be included, if necessary. These types of publications should not be longer than 800 words.

Requirements by publication types are summarized in the table below. Any article longer than these limits should be discussed with the Editor.

<table>
<thead>
<tr>
<th>Type</th>
<th>Abstract</th>
<th>Format of main text</th>
<th>Word limit</th>
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</thead>
<tbody>
<tr>
<td>Original article</td>
<td>Required</td>
<td>I-M-R-D</td>
<td>3,000</td>
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<tr>
<td>Review article</td>
<td>Required</td>
<td>I-M-R-D, I-text-D</td>
<td>3,000</td>
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<tr>
<td>Case report</td>
<td>Required</td>
<td>I-M-R-D, I-text-D</td>
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<td>Tutorial</td>
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<td>I-M-R-D, I-text-D</td>
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<td>Communication</td>
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<td>Editorial</td>
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I(Introduction), M(Methods), R(Results), D(Discussion)

3) Reporting guidelines for specific study designs

Authors are encouraged to refer the reporting guidelines relevant to their specific research design, which help to improve the accuracy, transparency, and completeness of research publications and increase the value of published paper. A comprehensive collection of reporting guidelines is available through the EQUATOR Network (http://www.equator-network.org/home/) and the United States National Institutes of Health/National Library of Medicine (http://www.nlm.nih.gov/services/research_report_guide.html).

4) General document format

- The manuscript should be double spaced on 21.6 × 27.9 cm (letter size) or 21.0 × 29.7 cm (A4) paper with margins of 1 inch, preferably using MS Word. All text should be Times New Roman 12-point font.
- All manuscript pages are to be numbered consecutively, beginning with the abstract as page 1. Neither the author's names nor their affiliations should appear on the manuscript pages.
- The use of acronyms and abbreviations is discouraged and should be kept to a minimum. When used, they are to be defined where first used, followed by the acronym or abbreviation in parentheses.

5) Technical format

**Units:** Standard metric units are used for describing length, height, weight, and volume. The unit of temperature is given in degree Celsius (°C). All others are in terms of the International System of Units (SI). All units must be preceded by one space except percentage (%) and temperature (°C).

**Numbers:** In the text, numbers should be Arabic numerals, except when beginning a sentence. Numbers greater than 999 should have commas, e.g., 13,970. The 24-hour system is used to indicate time, e.g., 18:00 hr.

**Abbreviations:** Abbreviations must be used as an aid to the reader, rather than as a convenience of the author, and therefore their use should be limited. Generally, avoid abbreviations that are used less than 3 times in the text, including tables and figure legends. Other common abbreviations are as follows (the same abbreviations are used for plural forms): hr (hour; use 0-24:00 hr for time), sec (second), min (minute), day (not abbreviated), wk (week), month (not abbreviated), yr (year), L (liter), mL (milliliter), μL (microliter), g (gram), kg (kilogram), mg (milligram), μg (microgram), ng (nanogram), pg (picogram), n (sample size), SD (standard deviation of the mean), SE (standard error of the mean).
Examples of reference formats
Sample formats for frequent reference types are given below:
(1) Journal article
1. Chae YM, Yoo KB, Kim ES, Chae H. The adoption of
electronic medical records and decision support systems
2. Vedel I, Lapointe L, Lussier MT, Richard C, Goudreau J,
Lalonde L, et al. Healthcare professionals’ adoption and
use of a clinical information system (CIS) in primary
care: insights from the Da Vinci study. Int J Med Inform
(2) Proceeding
3. Wolf KH, Marschollek M, Bott OJ, Howe J, Haux R. Sen-
sors for health-related parameters and data fusion ap-
proaches. In: Hein A, Thoben W, Appelrath HJ, Jensch
P, editors. Proceedings of the European Conference on
eHealth; 2007 Oct 11-12; Oldenburg, Germany. p. 155-
61.
(3) Book
4. Wolter J, Dolan MW, Jacobs EB, Walker RA, Burrington-
Brown J. The personal health record. Chicago (IL):
American Health Information Management Association;
2009.
5. Lorenzi NM, Riley RT. Public health informatics and or-
ganizational change. In: O’Carroll PW, Yasnoff WA, Ward
ME, Ripp LH, Martin EL, Ross DA, et al. Public health
informatics and information system. New York (NY):
(4) Website
6. WHO. WHO statistical information system [Internet].
Geneva, Switzerland: WHO; c2011 [cited at 2011 Dec
menu.cfm.
(5) Online publication
informatics: quality criteria and methodology for de-
tailed clinical methods. Geneva, Switzerland: Interna-
tional Organization for Standardization; 2009. (ISO/
CEN/Working Draft 13972).
8. Hunter MG, Robertson PW, Post JJ. Significance of iso-
lated reactive treponemal chemiluminescence immu-
dx.doi.org/10.1093/infdis/jis459
(6) Dissertation
9. Min JH. The study of security measures of threat on mo-
bile internet environment [dissertation]. Seoul, Korea:
Konkuk University; 2010.
(7) Others
‘Unpublished data’ and ‘Personal communications’ are not
allowed. Accepted but unpublished papers (not submitted
manuscript) may be listed among the references with the
journal name and tentative year of publication, followed by ‘in
press.’ If an article has been published online, but has not yet
been given an issue or pages, the digital object identifier (DOI)
should be supplied.

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Revised on January 1, 2020

NOTICE: This revised Instruction for Authors enters into force on the January 2020 issue.