ABSTRACT
Introduction: Acta Informatica Medica is official journal of the Academy for Medical Sciences of Bosnia and Herzegovina (from 2014 Acta Inform Med is published bimonthly). Aim: To evaluate journal “Acta Informatica Medica” in 2015 and compare findings to previous years. Material and methods: The study has retrospective and descriptive character, and included the period 2008-2015 (included 36 issues of journal). Results: A total of 83 (average 13,8 articles per journal) articles were published in Acta Informatica Medica during 2015. Analyzing the type of articles, original articles are present in majority during 2015 (68,6%) (by analyzing last eight years, 310 (67,3%) were original). During 2015, 27,7% of articles were related to the applied of Health informatics in field of clinical medicine, 63,8% preclinical medicine and 8,5% to public health. Collaboration rate in 2015 was 0,84. Most often the time required for decision on acceptance of article in 2015 is between 50 and 60 days. Articles came from 16 countries. According to scimagojr.com for 2014, Acta Informatica Medica has SCImago Journal Rank 0,166, while Cites / Doc. (2years) parameter (widely used as impact index) is 0,70. According to GoogleScholar, h5 index is 11 and h5 median is 19. We analyzed the Acta Informatica Medica by “Publish or Perish” software - H index was 14, g index was 19 and e-index was 10.39. Conclusion: Year after year the highest number of original articles are published. Although the period of revision of articles is acceptable, the period up to two months is certainly not long, the goal is to reduce this period. Although the magazine in mentioned field found its place, although it is indexed in numerous bases, including: PubMed, PubMed Central, SCOPUS, EMBASE, EBSCO, etc. The main goal for next year is that the magazine becomes part of the Web of Science. Imperative is further internationalization of the magazine.
Keywords: analysis, medical informatics.

1. INTRODUCTION
First issue of Acta Informatica Medica journal was published in 1993. From 2006, journal is published only in English language. Acta Informatica Medica publishes original research papers, technical notes, educational lectures and reviews covering all issues in medical informatics and science communication in health care (1-4). Scope of interest of the journal includes: medical and health informatics, system analysis, online databases, classification systems, electronic health records, clinical decision making, artificial intelligence, computer-assisted learning, distance learning, biomedical information, information technologies in biomedicine, signal processing, biomedical scientometrics and webometrics.

The circulation of Acta Informatica Medica during the war (1993-1995) (Figure 1) was roughly 50 copies, printed on a primitive copy-machine and compiled on the hybrid PC XT 4.7 MHz, which is almost unbelievable from today’s perspective (these print issues were distributed across Europe and elsewhere in the world by prominent political and military officials and representatives of international organizations, such as the Doctors Without Borders and the World Health Organization, visiting Sarajevo and Bosnia and Herzegovina with various wartime missions) (2).

In 2015 in B&H about twenty-five journals are issued in the field of biomedical and life sciences in general (journals that are indexed in Medline/PubMed are Medical Archives, Materia Socio-Medica, Acta Informatica Medica, Acta Medica Academica, Bosnian Journal of Basic Medical Sciences
Figure 1. Acta Informatica Medica in 1993 (1)

(BJBM) and Medicinski Glasnik) (3). Except of Pubmed and PubMed Central, Acta Informatica Medica is indexed in SCOPUS, EMBASE, EBSCO, Index Copernicus, Ulrich’s Periodicals Directory, Geneva Foundation for Medical Education and Research - GFMER, CAB abstracts, Global Health, HINARI, ProQuest, NewJour, ISC Master Journals List, Genamics JournalSeek, WorldCat, NLM Catalog, VINITI of RAS, CrossRef, Google Scholar, Catalyst, DynaPress, ScopeMed, Kubon and Sagner OPAC.

Acta Informatica Medica, is basically a journal that covers the field of medical informatics (health informatics), a field that is a part of all disciplines of preclinical and clinical medicine and public health (3, 4). Health informatics is the development and assessment of methods and systems for the acquisition, processing and interpretation of patient data with the help of knowledge from scientific research (is not tied to the application of computers but more generally to the entire management of information in healthcare - focus is patient and the process of care) (5).

Health informatics is the main weapon of modern medicine, especially of medicine whose primary goal is prevention and profit. One aspect of what this filed studies is information technology (IT). Health IT has the potential to improve the health of individuals and the performance of providers, yielding improved quality, cost savings, and greater engagement by patients in their own health care (6). Hardware development initiated the development of software, and its application in all human spheres, especially those most in need to people -the use of information technology has entered the daily basis of work of hospital centers. Information technologies in the teaching process can be used in few ways: interactive classroom, distance learning and virtual classroom (7).

Medical informatics, or attempt to simplify the work of doctors, speed up their activities and reduce costs of modern treatment, have laid the foundation of development of biomedical engineering, the field of the modern world, or the symbiosis of medical and electrical engineering (7).

The aforementioned areas, journal “Acta Informatica Medica” has been trying to popularize in Bosnia and Herzegovina and in Balkan region, and these attempts are trying to leave Bosnia and Herzegovina in the race with the modern Western world.

Acta Informatica Medica is official journal of the Society for Medical Informatics of Bosnia and Herzegovina and Academy of Medical Sciences of Bosnia and Herzegovina (Figure 2) (8, 9), and from 2014 Acta Informatica Medica is published bimonthly (initially in 1993, the journal was published biannually, later on, journal moved to the trice-yearly, then to the quarterly publishing frequency and finally to bimonthly publishing) (2).

2. AIM

Aim of the study was to evaluate journal “Acta Informatica Medica” in 2015 and compare findings to previous years.

3. MATERIAL AND METHODS

The study has retrospective and descriptive character, and included the period 2008-2015. Study included 36 issues of journal.

A total of 83 (average 13,8 articles per journal) articles were published in Acta Informatica Medica during 2015 (upward trend during period 2008-2015) (Figure 4). A large increase in the number of articles compared to 2008 is noted (average number of articles per issue has not changed, taking into account that in 2008, 4 issues of the journal per year were issued).
Analyzing the type of articles, original articles are present in majority during 2015 (68.6%) (Figure 5), which is indication of the seriousness of the magazine. By analyzing last eight years, 310 (67.3%) were original out of 460 (Figure 6). During 2015, 27.7% of articles were related to the field of preclinical medicine and 8.5% to public health (Figure 6). Analyzing last eight years, 58.2% articles were from the field of preclinical medicine (Figure 7). During 2015, in the domain of preclinical medicine, medical informatics was most frequent (86.8%) (Figure 8 shows number of articles from field of medical informatics).

Articles every year usually cover the field of preclinical medicine (except two-year period from 2012 to 2013), which is not surprising, given the purpose of this magazine (Figure 7). Collaboration rate (ratio of number of multi-authored articles with the total number of articles) in 2015 was 0.84. Most often the time required for decision on acceptance of article in 2015 is between 50 and 60 days (in 2014 the most common period was from 70 to 79 days) (Figure 9).

Articles came from 16 countries (which is a reduction in the number compared to 2014 when 20 different countries were represented), mostly from Iran. Countries from three continents were included (Europe, America and Asia) (Figure 10). According to scimagojr.com for 2014, Acta Informatica Medica has SCImago Journal Rank 0.166, Cites/Doc. (2years) (6) parameter (widely used as impact index) 0.70 (highest in Bosnia and Herzegovina), while H index is 6.

According to GoogleScholar, h5 index (h-index for articles published in the last 5 complete years) for Acta Informatica Medica is 11 and h5 median (median number of citations for the articles that make up its h5-index) is 19 (Figure 11, Figure 12).

We analyzed the Acta Informatica Medica by “Publish or Perish” software, H-index was 14, g index was 19 and e-index was 10.39 (Figure 13).
| Medical Archives | Materia Socio Medica | Acta Informatica Medica | Acta Medica Academica | Medicinski Glasnik | BHBM | Journal of Health Sciences | HealthMed | Acta Medica Saliniana | Pediatrics Today | Medical Journal | Pharmacien | Veterinar | Spor Science | Folia Medica | Scripia Medica |
|-----------------|---------------------|------------------------|-----------------------|------------------|-----|---------------------------|-----------|----------------------|----------------|---------------|------------|-------------|-------------|-------------|----------------|
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |
| SCIE            | PubMed Central      | PubMed/MedLine         | EMBASE                | Scopus           | SciEe| LERW O                     | DOAJ      | Index Copernicus       | Scopus          | Wildlife       | No         | New Jour     | SCImago     | Journal List | SciFinder     |

Table 1. Representation of the journals in Bosnia and Herzegovina in the field of medicine in the scientific bases (12.02.2016.).
5. DISCUSSION

The modern trend of the scientific publication is opening to a wider crowd through numerous web-based services (platforms for researchers, by enhancing the visibility of their publications, and consequently the potential number of citations - Research Gate, Academia.edu, Kudos, however and Google Scholar (great potential for the processing author scientometric impact)), where the latest scientific insights, by the author decision become available to non-subscribers on specific bases.

This is attempt for reducing a monopoly and information that science is for the rich only, which certainly should not be. The issue of publication of papers by the author, although the rights were still at the publisher, will surely become one...

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Table 2. Most prolific authors in B&H (top 20) analyzed by Publish or Perish software (based on Google Scholar database) – ordered by H index (retrieved: 23.03.2016.)

| Author             | H-index |
|--------------------|---------|
| Izet Masic         | 15      |
| Semir Vranic       | 14      |
| Enver Zerem        | 13      |
| Osman Sinanovic    | 13      |
| Azra Alajbegovic   | 13      |
| Ljerka Ostojic     | 12      |
| Husref Tahirovic   | 12      |
| Mirsada Hukic      | 9       |
| Abdulah Kucukalic  | 9       |
| Mirza Dilic        | 8       |
| Farid Ljuca        | 8       |
| Aida Kulo          | 8       |
| Halima Resic       | 7       |
| Adija Causevic     | 7       |
| Semir Beslja       | 6       |
| Almir Hadzovic Dzuvo | 6     |
| Rusmir Mesihovic   | 6       |
| Nermin Salkic      | 6       |
| Sedin Kobašlija    | 6       |
| Haris Pandza       | 6       |

Table 3. Most prolific authors in B&H (top 20) ordered by number of articles (based on PubMed) (retrieved: 23.03.2016.)

| Author       | PubMed |
|--------------|--------|
| Izet Masic   | 306    |
| Osman Sinanovic | 100   |
| Enver Zerem  | 97     |
| Husref Tahirovic | 71   |
| Abdulah Kucukalic  | 57   |
| Halima Resic | 55     |
| Azra Alajbegovic | 53    |
| Semir Vranic | 52     |
| Mirsada Hukic| 52     |
| Farid Ljuca  | 49     |
| Jasenko Karamcic | 43   |
| Vjekoslav Gerc | 39    |
| Ljerka Ostojic | 38    |
| Dragana Niksic | 38    |
| Jasminco Huskic | 38   |
| Rusmir Mesihovic | 37    |
| Nermin Salkic | 37     |
| Mirza Dilic  | 37     |
| Stibodan Loga | 36     |
| Marko Buksa  | 34     |

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Author H-index
Izet Masic 15
Semir Vranic 14
Enver Zerem 13
Osman Sinanovic 13
Azra Alajbegovic 13
Ljerka Ostojic 12
Husref Tahirovic 12
Mirsada Hukic 9
Abdulah Kucukalic 9
Mirza Dilic 8
Farid Ljuca 8
Aida Kulo 8
Halima Resic 7
Adija Causevic 7
Semir Beslja 6
Almir Hadzovic Dzuvo 6
Rusmir Mesihovic 6
Nermin Salkic 6
Sedina Kobaslija 6
Haris Pandza 6

Table 2. Most prolific authors in B&H (top 20) analyzed by Publish or Perish software (based on Google Scholar database) – ordered by H index (retrieved: 23.03.2016.)

Table 3. Most prolific authors in B&H (top 20) ordered by number of articles (based on PubMed) (retrieved: 23.03.2016.)
of one of the major problems in the scientific world (Table 1, 2, and 3).

ORCID provides a persistent digital identifier, which was necessary in modern science, because of the growing number of authors.

We analyzed the most prolific authors of BiH by mentioned software (Table 2 and 3) (8, 9). In 2015 in Bosnia and Herzegovina about twenty five journals are issued in the field of biomedical and life sciences in general - 17 of the most relevant journals are selected, and their indexation in scientific databases is presented (Table 1).

6. CONCLUSIONS

Acta Informatica Medica is the only magazine that directly deals with the field of medical informatics in Bosnia and Herzegovina. Year after year the highest number of original articles are published. Although the period of revision of articles is acceptable, the period up to two months is certainly not long, the goal is to reduce this period.

Although the magazine in mentioned field found its place, although it is indexed in numerous bases, the main goal for next year is that the magazine becomes part of the Web of Science (gold standard for research discovery and analytics). Imperative is further internationalization of the magazine.

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