Letter to Editor

Designing of clinical information update system for clinicians on Covid-19: A commentary

Introduction

The valid clinical information can help health-care providers to make the right decisions and enable them to provide better services to patients.[1] In addition, valid clinical information helps clinicians to be more confident in their decisions. Therefore, access to and use of valid clinical information in a specific protocol format in addition to guarantee health-care specialists and patients' rights can lead to lower costs for health-care centers and increase the satisfaction of recipients (patients) and accuracy of clinicians in the therapeutic process. Given the importance of evidence-based medicine (EBM) and this fact that the outcome of this process will be clinical judgment, therefore, the use of clinical information for clinical professionals as a clinical judgment feed source is inevitable. In the Covid-19 crisis, clinicians are less likely to use the latest scientific evidence in diagnostic and therapeutic processes because of specific conditions such as lack of time, workload, insufficient time to read scientific papers and peer experiences, and lack of on-site information technology facilities. However, given the unknown dimensions of the virus, clinical professionals' accessibility and their use of the latest scientific findings are very important. For example, some countries have already shared the results of its experiences and scientific findings with other countries, and this has been a crucial factor in preventing, diagnosing, and even treating large numbers of patients in other countries. By examining the articles published in databases such as PubMed, Web of Science, and Scopus and even protocols developed by the World Health Organization and the countries Health Ministry, we can see the speed of articles publication. What should be done now to resolve updating issues of physician's clinical information instantly (in the moment)? It should be said that due to the increasing speed of clinical information production in the health field, clinical professionals need to access the valid clinical information in the shortest possible time to make clinical decision with the least complications. To this purpose, the medical field is moving rapidly toward EBM and in addition to physicians' clinical information literacy skills,[2,3] as a requirement and prerequisites for effective implementation of EBM process, it requires a clinical information update system. Based on this need, the authors of this article propose the designing a clinical information update system for clinicians on Covid-19.

Proposed Clinical Information Update System for Clinicians

The system can be designed based on the capabilities of smartphones as well as applications and new technologies such as social media and Internet of things, etc. Using the capabilities of technologies, it is possible to share clinical information quickly. The system is such a way that allows sharing and exchanging of information between clinical practitioners and anticipated centers such as each country Ministry of Health, the World Health Organization, and even evidence-based databases simultaneous and asynchronous. These anticipated information centers are divided into two groups:

Countries ministry of health as well as the World Health Organization

To implement this system, the Ministry of Health and Medical Education or the World Health Organization should set up working groups in these institutions and identify the latest scientific findings from reliable sources and provide clinicians in hospitals with these information compactly (key points or highlights) simultaneously and asynchronously through this system and also answer clinical professional questions. Clinical librarian can assist in searching for the latest scientific evidence and clinical professionals can help in resource evaluation. The system will be able to receive questions and answers between these centers as well as clinicians in the hospital synchronize and asynchronous and be able to easily share text, audio, and even images. This system can be equipped with the frequently asked questions option to save time for system staff and clinical professionals so they can prioritize questions and answers.

Evidence-based medicine databases

To implement this system, hardware and software needed to exchange and share information must be provided. EBM databases (EBMDs) are databases that present evidence-based information in an accessible format and answer physicians' questions about patients in a specific method and the shortest possible time.[4] Nowadays, there are many EBMDs in the world which are used by clinical practitioners. Some journals covered

and indexed by databases have a part which called "Key Points or highlights," sometimes in the text format and sometimes in audio format which is embedded in the article. Therefore, databases should be revised over the time in case of acceptance and journal indexing standards and forced journals in the viral disease scope, to include this section (key points) which in times of crisis enables them to quickly share information with clinical experts around the world instead of the original article, which its reading is time consuming. Through this method, only the key points of the article are sent to clinical professionals. However, having a text or audio format allows clinical practitioners to select the desired format in the clinical round appropriate the situation. Other features that can be anticipated for this system include the capability of translation the messages as well as information between clinicians simultaneously. This system will also be able to continuously send news, abstracts, and key points of published articles about Covid-19 to clinical professionals after the crisis. Confidentiality of information, the user-friendliness of the interface, and the ease of use are other features of this system.

Conclusion

The use of clinical information is important because it contributes to the prevention, diagnosis, treatment, and rehabilitation of patients. Clinical information is valuable when it is provided at a right time, right place, and right individual. In crisis such as the Covid-19, update of physicians' clinical information is difficult. Conventional EBM procedures that occur in normal conditions in hospitals are not possible. Therefore, IT-based methods and intelligent information systems should be used. The proposed system has various benefits such as speeding up clinical information sharing and reducing the gap between the production of clinical information and its use, using the collective wisdom of clinical practitioners around the world in decision-making, sharing guidelines and therapeutic protocols.Also, utilizing new information technologies capabilities to access and share clinical information, the possibility of simultaneously questioning between clinical professionals are other advantages this system. In addition. revise journals and evidence-based databases to equip clients with access to clinical information, increasing cooperation and scientific exchanges between countries, and quick-decision making by physicians in diagnosis and treatmentare other beneifits of this system.

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Conflicts of interest

There are no conflicts of interest.

Hasan Ashrafi-Rzi, Zahra Kazempour[1]

Medical Library and Information Science Department, Health Information Technology Research Center, Isfahan University of Medical Sciences, Isfahan, Iran, [1]Library and Information Science Department, Faculty of Media, Payame Noor University, Tehran, Iran

Address for correspondence:
Dr. Hasan Ashrafi-Rzi,
Medical Library and Information Science Department,
Health Information Technology Research Center,
Isfahan University of Medical Sciences, Isfahan, Iran.
E-mail: hassanashrafi@mng.mui.ac.ir

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